

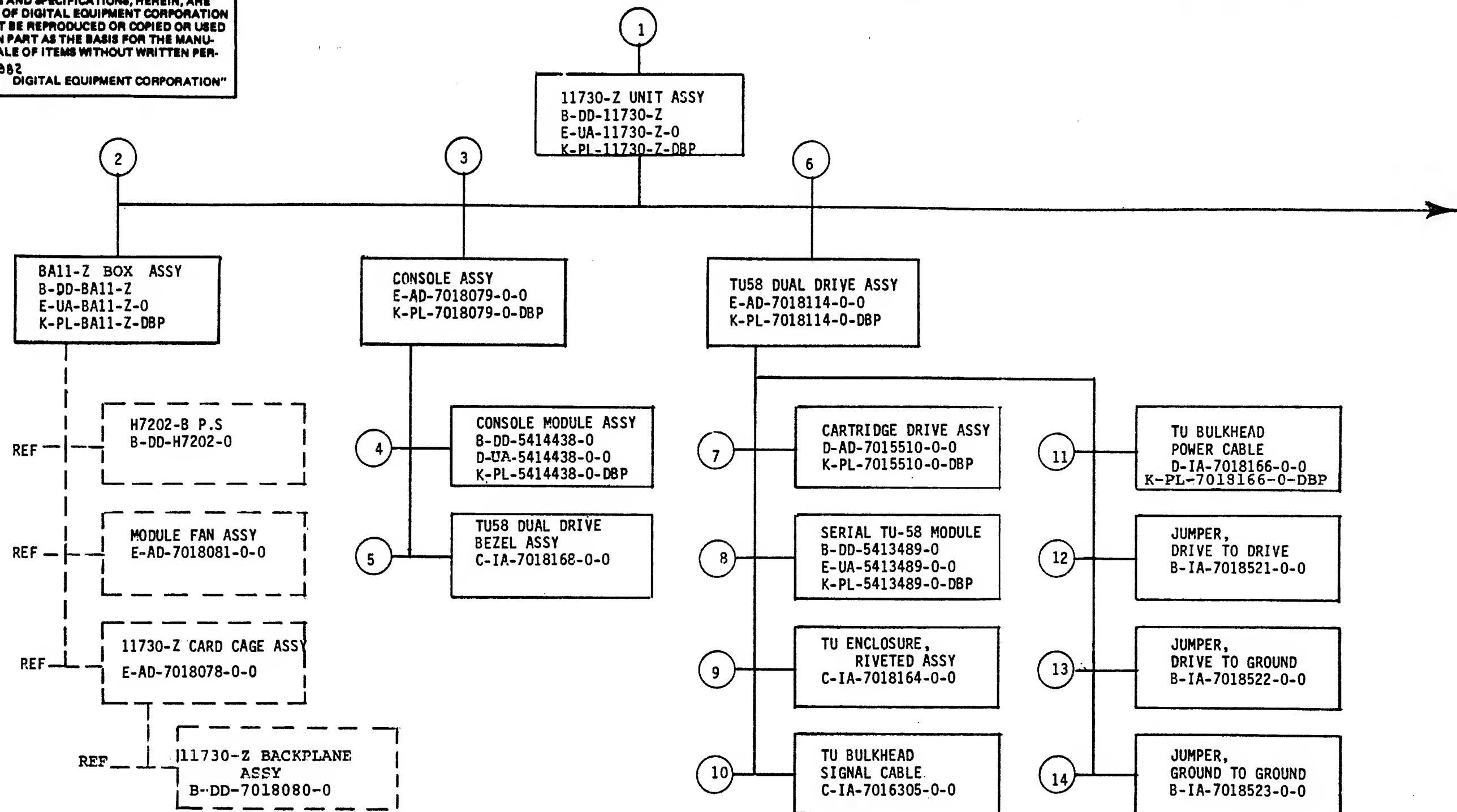
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION."

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION.

[illegible]

REVISIONS	REV.		USED ON OPTION/MODEL	DRN.	<i>RPMorin</i>	DATE	<i>2 FEB 82</i>	TITLE 11730-Z UNIT ASSY										<div>digital</div>					
	CHANGE NO.			CHK'D.	<i>RPMorin</i>	DATE	<i>2 FEB 82</i>																
	CHK			PROJ. ENG.	<i>RPMorin</i>	DATE	<i>2 FEB 82</i>																
				PROD.	<i>SACastyle</i>	DATE	<i>21 APR 82</i>	SIZE	CODE	NUMBER						REV							
				SHEET 1 OF 6				B	DD	11730-Z						A							
										DIST.													

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
 1982
 COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"

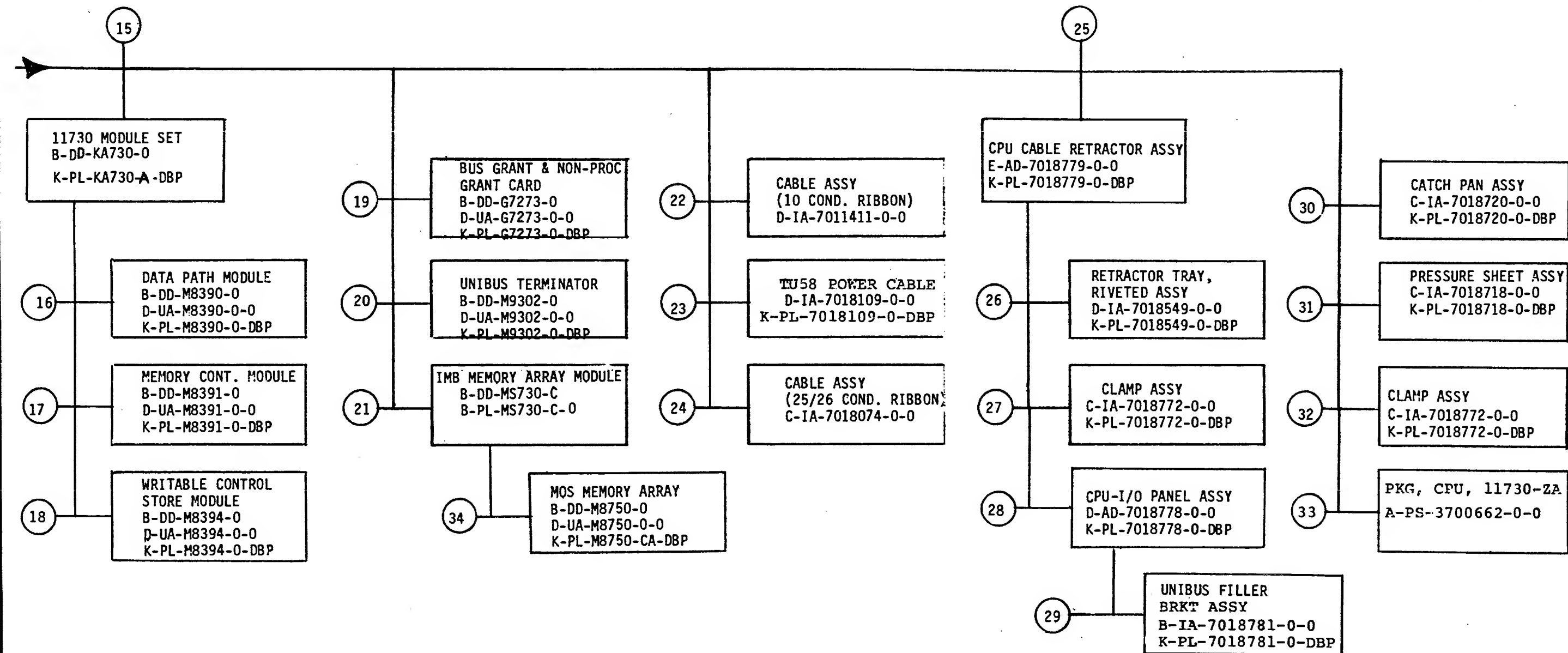


TITLE	SIZE	CODE	NUMBER	REV
11730-Z UNIT ASSY	B	DD	11730-Z	A

SHEET 2 OF 6

TW

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. 1982
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"



TITLE
11730-Z UNIT ASSY

SHEET 3 OF 6

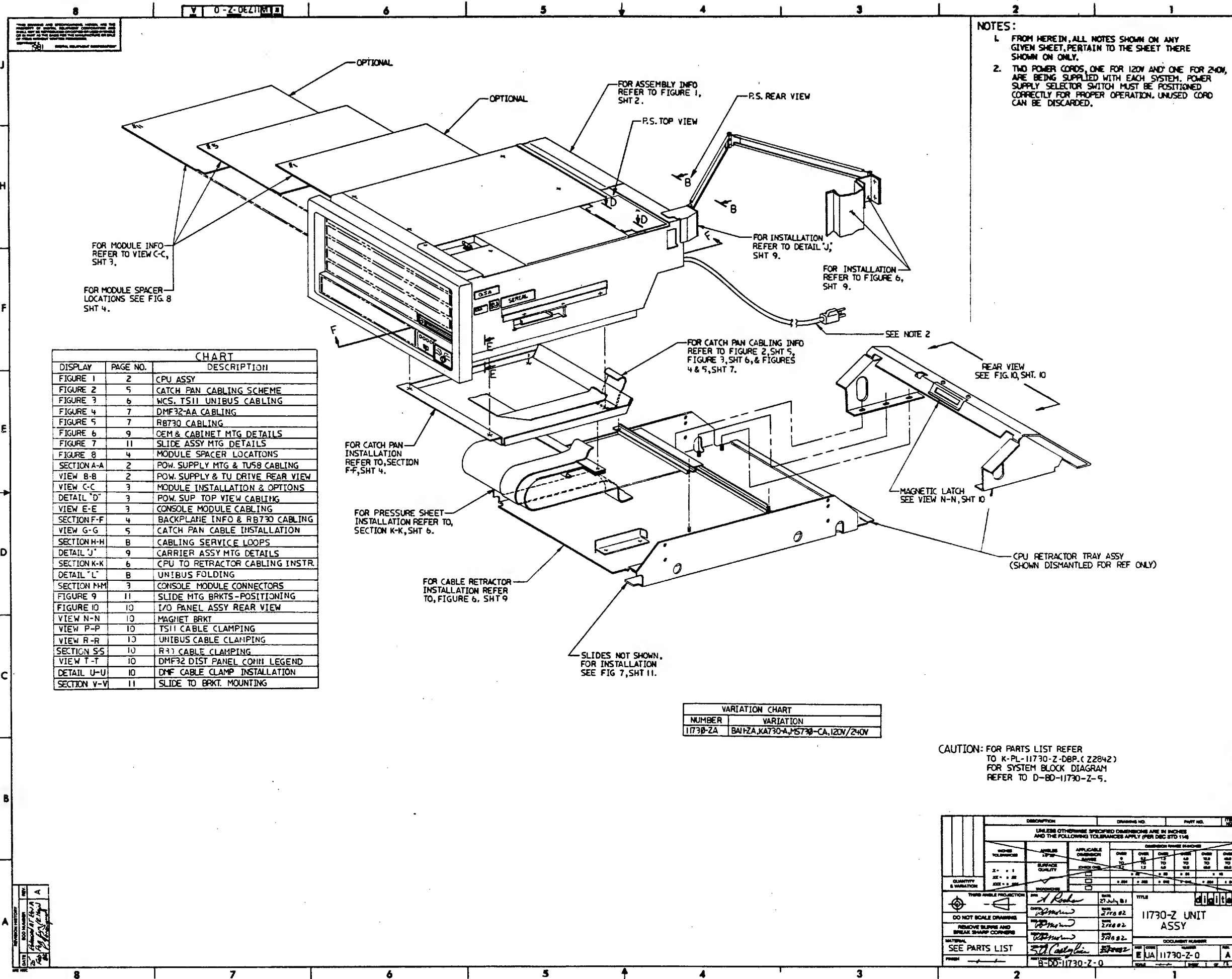
SIZE CODE
B DD

NUMBER
11730-Z

REV
A

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1.	MP01270	FIELD MAINTENANCE PRINT SET (MP)	-	5.	C-IA-7018168-0-0	TU58 DUAL DRIVE BEZEL ASSY	M
	B-TC-11730-Z-1	FIELD MAINTENANCE PRINT SET (TC)	-		D-MD-7425270-0-0	BEZEL,FRONT,TU	M
	B-DD-11730-Z	11730-Z UNIT ASSY - DRAWING DIRECTORY	-		B-MD-7425341-0-0	TU,LED BUTTON	M
	E-UA-11730-Z-0	11730-Z UNIT ASSY	E/M				
	K-PL-11730-Z-DBP	11730-Z UNIT ASSY - PARTS LIST -Z28	-	6.	E-AD-7018114-0-0	TU58 DUAL DRIVE ASSY	E/M
	B-PL-11730-Z-2	11730-Z SHIPPING LIST	-		K-PL-7018114-0-DBP	TU58 DUAL DRIVE ASSY - PARTS LIST - Z1352	-
	B-PL-11730-Z-3	11730-Z HARDWARE KIT LIST	M		D-IA-7423933-0-0	PLATFORM,TU58	M
	D-BD-11730-Z-5	11730 SYSTEM BLOCK DIAGRAM	-		B-MD-7424846-0-0	TU CENTER BRACE	M
	E-PS-1209856-0-0	MODULE HOLDER	M		D-MD-7424848-0-0	TU,BOTTOM PLATE	M
	A-PS-1217665-0-0	FILTER FOAM	M		A-PS-1118799-0-0	LED CABLE ASSY	E/M
	A-PS-1218166-0-0	SLIDE (PAIR) W/HDW	M				
	A-PS-1219020-0-0	CARRIER,CABLE	M	7.	D-AD-7015510-0-0	CARTRIDGE DRIVE ASSY	E/M
	A-PS-1215700-0-0	CABLE,FERRULED	M		K-PL-7015510-0-DBp	CARTRIDGE DRIVE ASSY - PARTS LIST - Z1620	-
	A-PS-3615809-0-0	MEDIA CARTRIDGE,TU58-K	M				
	D-MD-7425374-0-0	BRACKET,SLIDE MOUNTING	M	8.	B-DD-5413489-0	SERIAL TU58 MODULE ASSY - DRAWING DIRECTORY	-
	B-IA-7426335-0-0	PLATE,STUD	M		E-UA-5413489-0-0	SERIAL TU58 MODULE ASSY	E/M
	C-MD-7413659-0-0	BRACKET,SHIPPING	M		K-PL-5413489-0-DBP	SERIAL TU58 MODULE ASSY - PARTS LIST - Z0582	-
	C-MD-7425927-0-0	GUIDE AND CLAMP	M		D-CS-5413489-0-1	SERIAL TU58 MODULE ASSY - CIRCUIT SCHEMATIC	E
	C-MD-7425928-0-0	BRACKET,CARRIER/BOX	M				
	C-MD-7425929-0-0	BRACKET,CAB/CARRIER	M	9.	C-IA-7018164-0-0	TU ENCLOSURE,RIVETED ASSY	M
	D-MD-7426623-0-0	CLAMP,R80 CABLE	M		E-IA-7424845-0-0	TU ENCLOSURE	M
	D-IA-7426625-0-0	CLAMP,DMF CABLE	M		C-MD-7424847-0-0	TU BACKPLATE	M
	B-IA-7426723-0-0	BAR CLAMP ASSY	M				
			-				
				10.	C-IA-7016305-0-0	TU BULKHEAD SIGNAL CABLE	E/M
2.	B-DD-Ball-Z	Ball-Z BOX ASSY -DRAWING DIRECTORY	-				
	E-UA-Ball-Z-0	Ball-Z BOX ASSY	E/M	11.	D-IA-7018166-0-0	TU BULKHEAD POWER CABLE	E/M
	K-PL-Ball-Z-DBP	Ball-Z BOX ASSY - PARTS LIST - Z1862	-		K-PL-7018166-0-DBP	TU BULKHEAD POWER CABLE - PARTS LIST - Z1854	-
3.	E-AD-7018079-0-0	CONSOLE ASSY	E/M	12.	B-IA-7018521-0-0	JUMPER,DRIVE TO DRIVE	M
	K-PL-7018079-0-DBP	CONSOLE ASSY - PARTS LIST - Z1827	-				
	A-PS-1216178-0-0	LOCK,ASSY PLASTIC (6 POS)	M	13.	B-IA-7018522-0-0	JUMPER,DRIVE TO GROUND	M
	A-PS-1217094-0-0	BEZEL,10.5 IN.	M				
	A-PS-1217665-0-0	FILTER,FOAM INSERT	M	14.	B-IA-7018523-0-0	JUMPER GROUND TO GROUND	M
	E-IA-7424269-0-0	CONSOLE,INSERT	M				
	E-IA-7424832-0-0	MOUNTING PLATE,10.5 IN.	M	15.	B-DD-KA730-A	11730 MODULE SET - DRAWING DIRECTORY	-
	D-MD-7426334-0-0	SHIELD	M		K-PL-KA730-A-DBP	11730 MODULE SET - PARTS LIST	-
4.	B-DD-5414438-0	CONSOLE MODULE ASSY - DRAWING DIRECTORY	-				
	D-UA-5414438-0-0	CONSOLE MODULE ASSY	E/M				
	K-PL-5414438-0-DBP	CONSOLE MODULE ASSY - PARTS LIST	-				
	D-CS-5414438-0-1	CONSOLE MODULE ASSY - CIRCUIT SCHEMATIC	E				
TYPE: E ELECTRICAL M MECHANICAL E/M ELECTRO/MECHANICAL				TITLE 11730-Z UNIT ASSY SHEET 4 OF 6 SIZE CODE B DD NUMBER 11730-Z REV A			

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
16	B-DD-M8390-0	M8390 DATA PATH MODULE - DRAWING DIRECTORY	-	25	E-AD-7018779-0-0	CPU CABLE RETRACTOR ASSY	M
	D-UA-M8390-0-0	M8390 DAP MODULE ASSY	E/M		K-PL-7018779-0-DBP	CPU CABLE RETRACTOR ASSY (PARTS LIST) -Z3612	-
	K-PL-M8390-0-DBP	M8390 DAP MODULE ASSY (PARTS LIST)	-		E-IA-7425733-0-0	TRAY, R.H. HALF	M
	D-CS-M8390-0-1	M8390 DAP MODULE - CIRCUIT SCHEMATIC	E		E-IA-7426619-0-0	BRACKET, I/O PANEL (RT AND LT)	M
					E-IA-7426618-0-0	PANEL, I/O PORT	M
					C-IA-7426620-0-0	BRACKET, MAGNET	M
17	B-DD-M8391-0	M8391 MEMORY CONTROLLER MODULE DWG DIRECTORY	-		C-MD-7426621-0-0	COVER PLATE, R80 HOLE	M
	D-UA-M8391-0-0	M8391 MCT MODULE ASSY	E/M		B-IA-7426652-0-0	PLATE, NUT	M
	K-PL-M8391-0-DBP	M8391 MCT MODULE ASSY (PARTS LIST)	-		D-MD-7426407-01-DBU	PANEL, DOUBLE BLANK	M
	D-CS-M8391-0-1	M8391 MCT MODULE- CIRCUIT SCHEMATIC	E		A-PS-1212908-0-0	DOOR CATCH, MAGNETIC	M
18	B-DD-M8394-0	M8394 WRITABLE CONTROL STORE MODULE -DWG DIR.	-	26	D-IA-7018549-0-0	RETRACTOR TRAY - RIVETED ASSY	M
	D-UA-M8394-0-0	M8394 WCS MODULE ASSY	E/M		K-PL-7018549-0-DBP	RETRACTOR TRAY - RIVETED ASSY (PARTS LIST) - Z2446	-
	K-PL-M8394-0-DBP	M8394 WCS MODULE ASSY (PARTS LIST)	-		D-MD-7425729-0-0	GUIDE, CABLE	M
	D-CS-M8394-0-1	M8394 WCS MODULE - CIRCUIT SCHEMATIC	E		E-IA-7425732-0-0	TRAY, L.H. HALF	M
19	B-DD-G7273-0	BUS GRANT AND NON-PROCESSOR GRANT CARD - DWG DIR.	-	27	C-IA-7018772-0-0	CLAMP ASSY	M
	D-UA-G7273-0-0	GRANT CARD ASSY	E/M		K-PL-7018772-0-DBP	CLAMP ASSY (PARTS LIST) -Z3325	-
	K-PL-G7273-0-DBP	GRANT CARD ASSY (PARTS LIST)	-		C-MD-7425711-0-0	CLAMP, CABLE	M
					B-MD-7426358-0-0	FOAM, ADH-BACKED	M
20	B-DD-M9302-0	UNIBUS TERMINATOR - DRAWING DIRECTORY	-	28	D-AD-7018778-0-0	CPU - I/O PANEL ASSY	M
	D-UA-M9302-0-0	UNIBUS TERMINATOR ASSY	E/M		K-PL-7018778-0-DBP	CPU - I/O PANEL ASSY (PARTS LIST) -Z3616	-
	K-PL-M9302-0-DBP	UNIBUS TERMINATOR ASSY (PARTS LIST)	-		D-IA-7426405-04-DBU	PLATE, SEXTAL, CPU - I/O	M
	D-CS-M9302-0-1	UNIBUS TERMINATOR ASSY - CIRCUIT SCHEMATIC	E		C-IA-7426654-0-0	BRACKET, CABLE GRD	M
					A-PS-1219534-0-0	SCREW, CAPTIVE	M
					A-PS-1217431-0-0	CONN, D SUB, 25 PIN FILTERED	E/M
					A-PS-1211591-0-0	CONN, ZIF, 40 CONDUCTOR	E/M
21	B-DD-MS730-C	MS730 MEMORY ARRAY MODULE - DRAWING DIRECTORY	-				
	K-PL-MS730-C-DBP	MS730 MEMORY ARRAY MODULE ASSY - PARTS LIST	-	29	B-IA-7018781-0-0	BRACKET ASSY, UNIBUS FILLER	M
					K-PL-7018781-0-DBP	BRACKET ASSY, UNIBUS FILLER (PARTS LIST) Z3618	-
					D-MD-7426624-0-0	PLATE, UNIBUS FILLER	M
					B-MD-7426653-0-0	FOAM PAD, CABLE CLAMP	M
22	D-IA-7011411-0-0	CABLE ASSY - 10 COND. RIBBON	E/M				
23	D-IA-7018109-0-0	CABLE, TU58 POWER	E/M	30	C-IA-7018720-0-0	CATCH PAN ASSY	M
	K-PL-7018109-0-DBP	CABLE, TU58 POWER (PARTS LIST) - Z1853	-		K-PL-7018720-0-DBP	CATCH PAN ASSY (PARTS LIST) -Z2835	-
					E-IA-7425728-0-0	CATCH PAN	M
24	C-IA-7018074-0-0	CABLE ASSY - 25/26 COND RIBBON	E/M				
TYPE: E ELECTRICAL M MECHANICAL E/M ELECTRO/MECHANICAL				TITLE 11730-Z UNIT ASSY			SHEET 5 OF 6
<div>digital</div>				SIZE CODE B DD			NUMBER 11730-Z
DRB 108A				REV A			TW



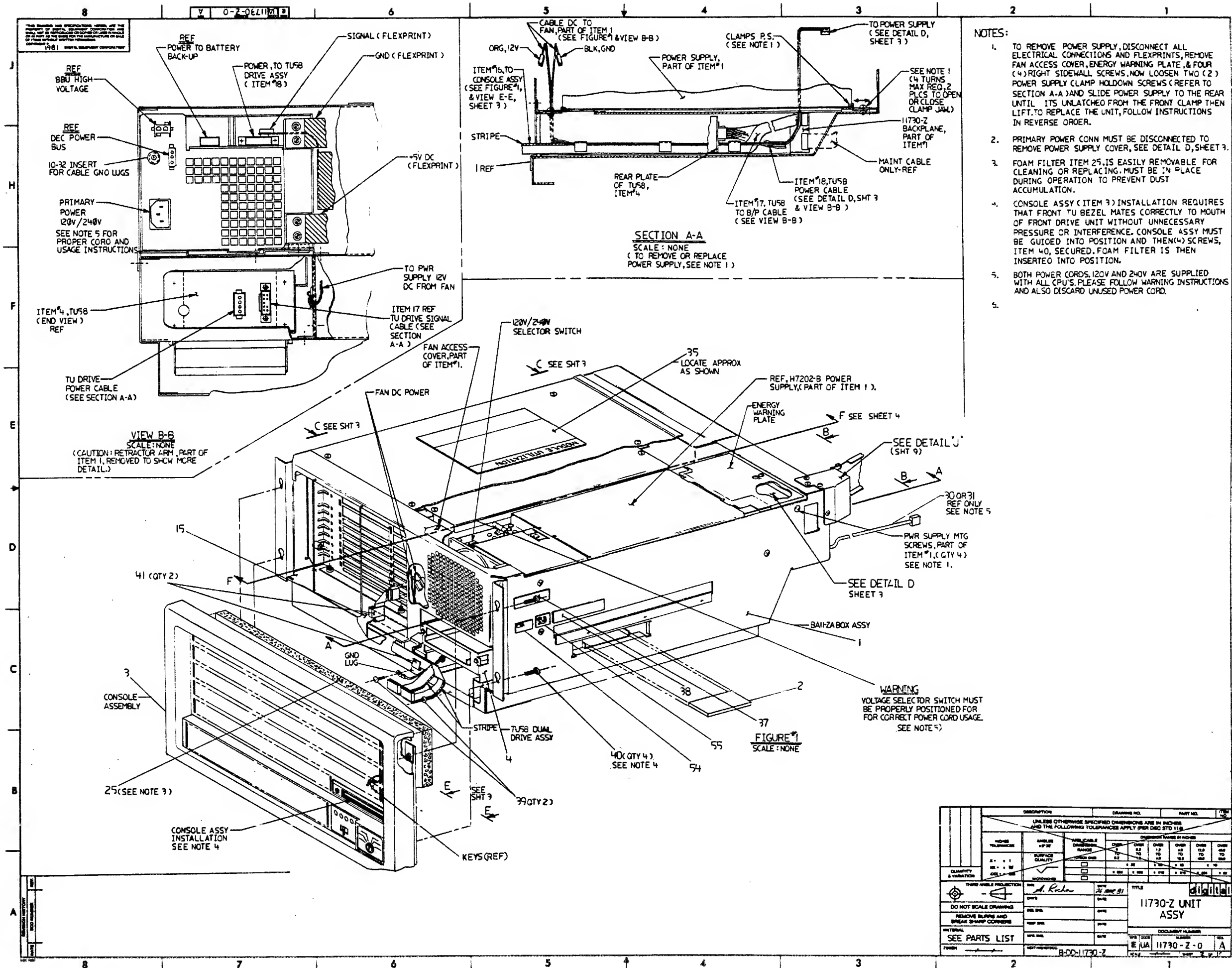
- NOTES:
1. FROM HEREIN, ALL NOTES SHOWN ON ANY GIVEN SHEET, PERTAIN TO THE SHEET THERE SHOWN ON ONLY.
 2. TWO POWER CORDS, ONE FOR 120V AND ONE FOR 240V, ARE BEING SUPPLIED WITH EACH SYSTEM. POWER SUPPLY SELECTOR SWITCH MUST BE POSITIONED CORRECTLY FOR PROPER OPERATION. UNUSED CORD CAN BE DISCARDED.

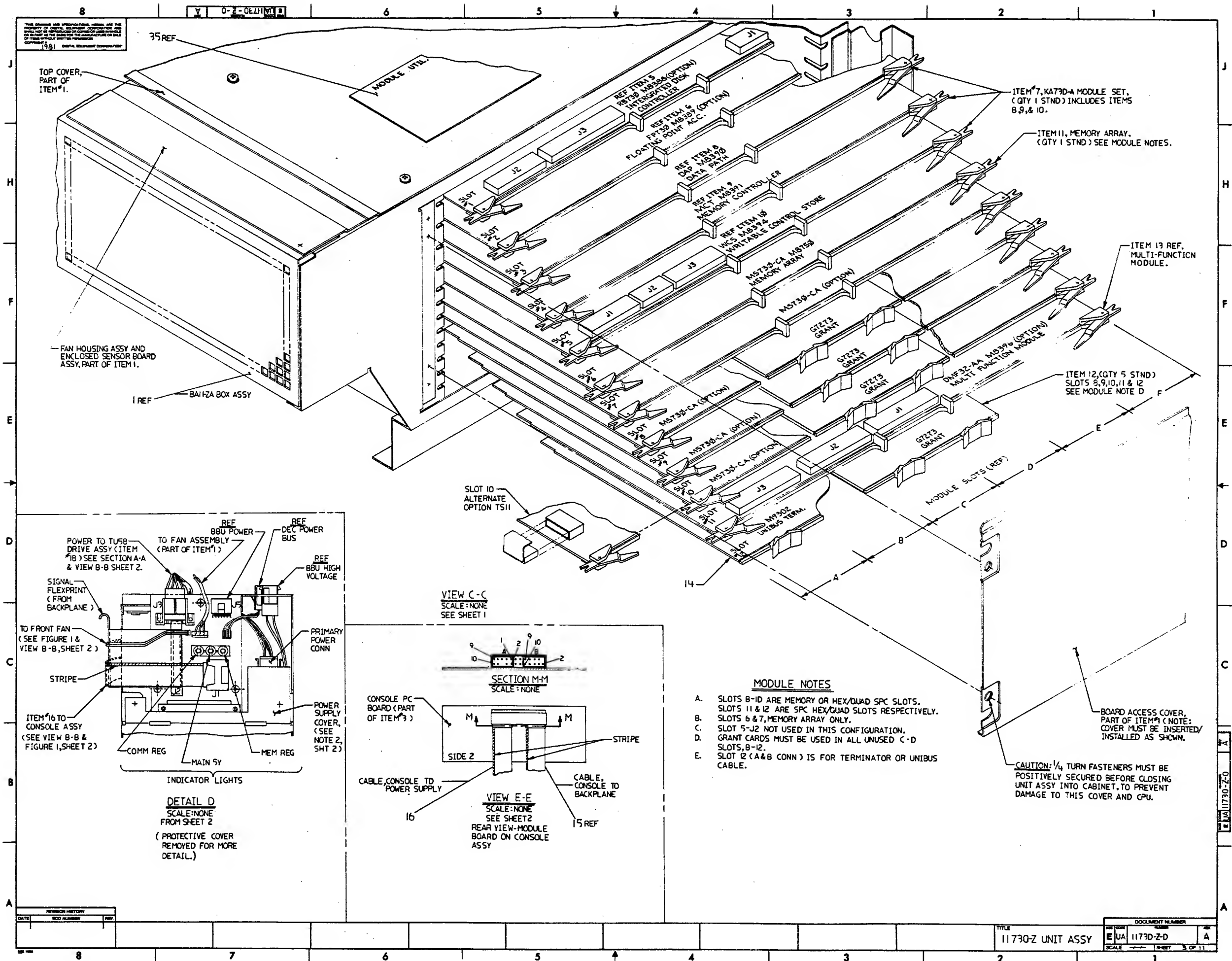
CHART		
DISPLAY	PAGE NO.	DESCRIPTION
FIGURE 1	2	CPU ASSY
FIGURE 2	5	CATCH PAN CABLING SCHEME
FIGURE 3	6	WCS, TSII UNIBUS CABLING
FIGURE 4	7	DMF32-AA CABLING
FIGURE 5	7	RB730 CABLING
FIGURE 6	9	CEM & CABINET MTG DETAILS
FIGURE 7	11	SLIDE ASSY MTG DETAILS
FIGURE 8	4	MODULE SPACER LOCATIONS
SECTION A-A	2	POW. SUPPLY MTG & TUS8 CABLING
VIEW B-B	2	POW. SUPPLY & TU DRIVE REAR VIEW
VIEW C-C	3	MODULE INSTALLATION & OPTIONS
DETAIL 'D'	3	POW. SUP. TOP VIEW CABLING
VIEW E-E	3	CONSOLE MODULE CABLING
SECTION F-F	4	BACKPLANE INFO & RB730 CABLING
VIEW G-G	5	CATCH PAN CABLE INSTALLATION
SECTION H-H	8	CABLING SERVICE LOOPS
DETAIL 'J'	9	CARRIER ASSY MTG DETAILS
SECTION K-K	6	CPU TO RETRACTOR CABLING INSTR.
DETAIL 'L'	8	UNIBUS FOLDING
SECTION M-M	3	CONSOLE MODULE CONNECTORS
FIGURE 9	11	SLIDE MTG BRKTS-POSITIONING
FIGURE 10	10	I/O PANEL ASSY REAR VIEW
VIEW N-N	10	MAGNET BRKT
VIEW P-P	10	TSII CABLE CLAMPING
VIEW R-R	10	UNIBUS CABLE CLAMPING
SECTION SS	10	R31 CABLE CLAMPING
VIEW T-T	10	DMF32 DIST PANEL CONN LEGEND
DETAIL U-U	10	DMF CABLE CLAMP INSTALLATION
SECTION V-V	11	SLIDE TO BRKT. MOUNTING

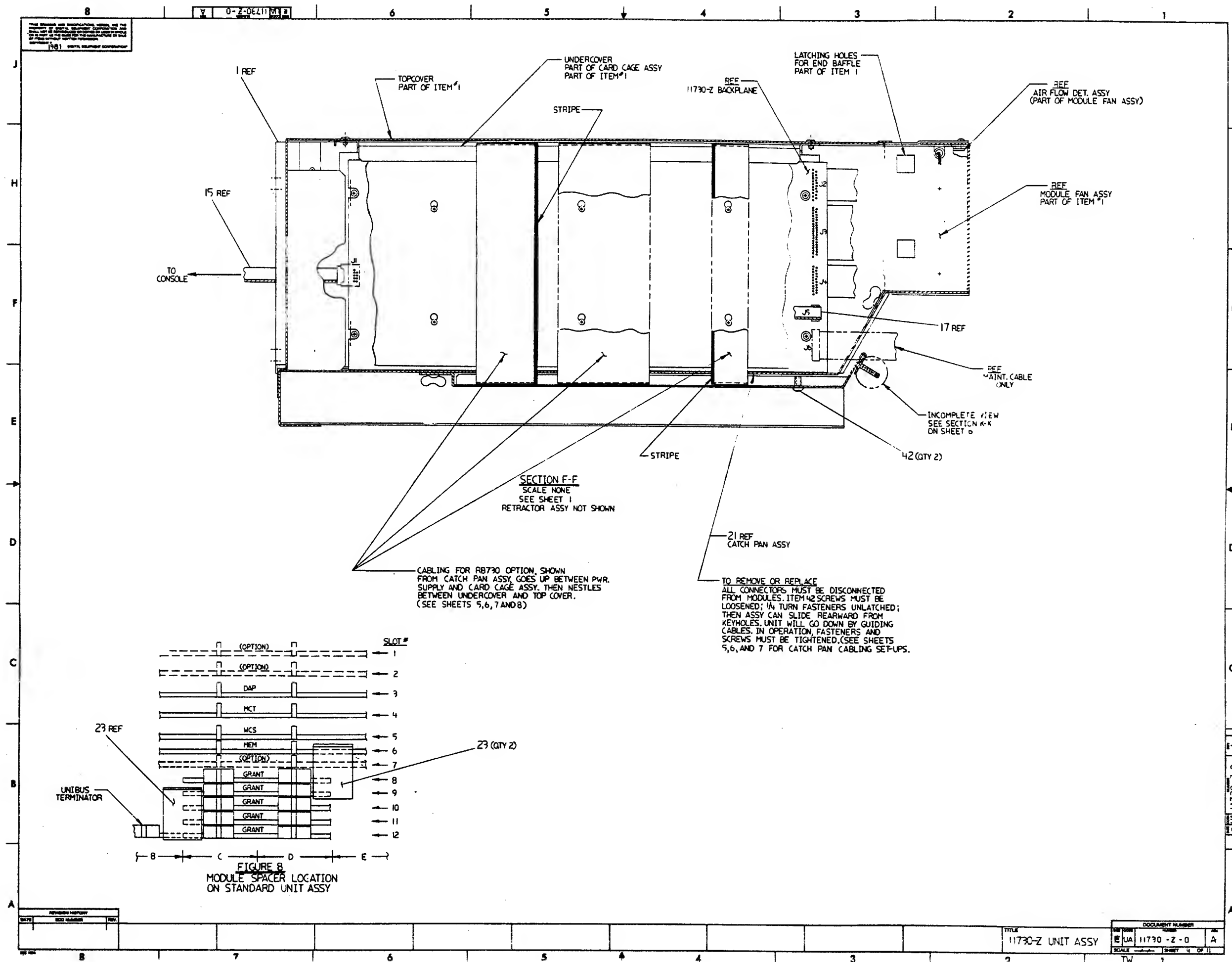
VARIATION CHART	
NUMBER	VARIATION
11730-ZA	BAI12A, KA730-A, M5730-CA, 120V/240V

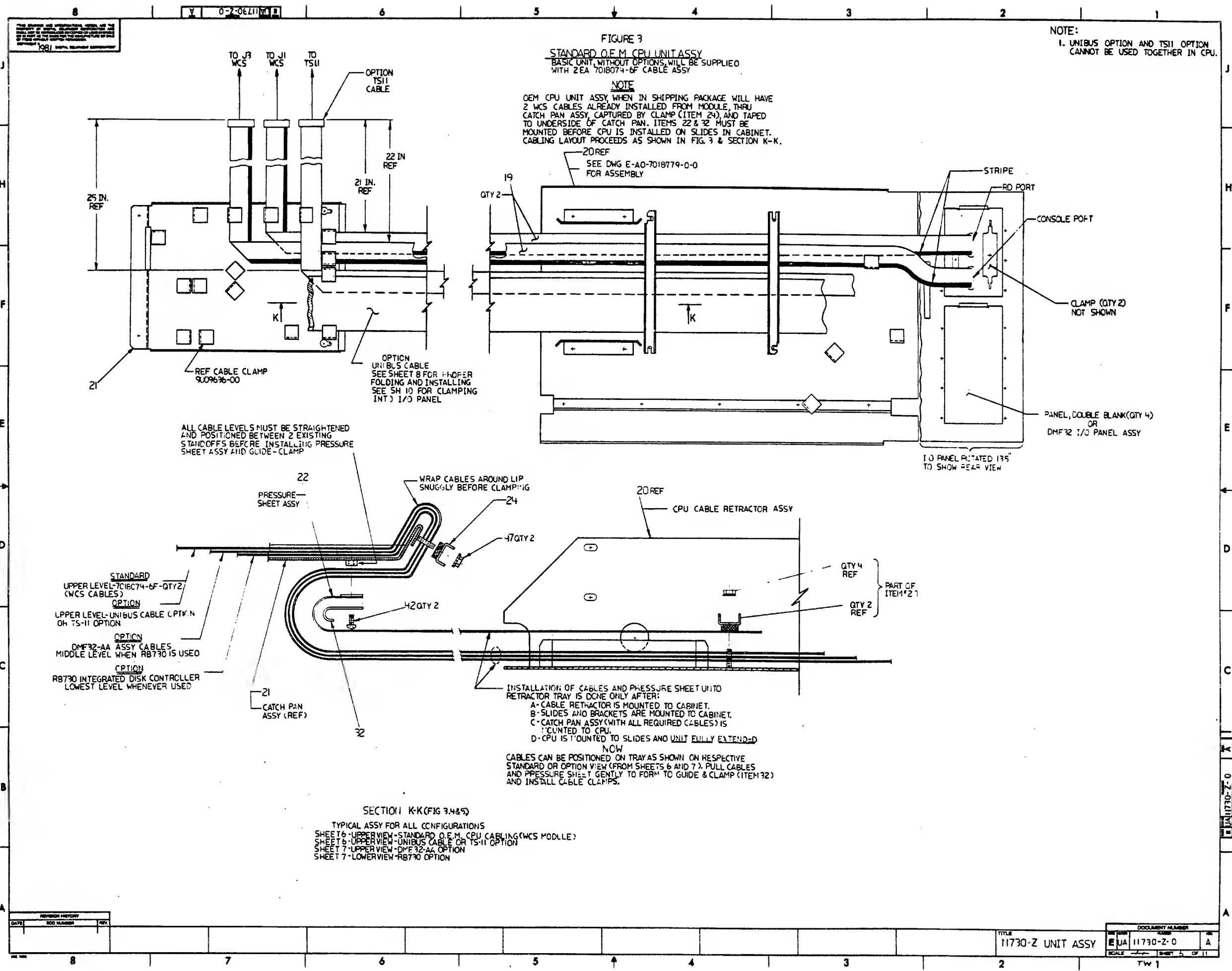
CAUTION: FOR PARTS LIST REFER TO K-PL-11730-Z-DBP. (22842) FOR SYSTEM BLOCK DIAGRAM REFER TO D-80-11730-Z-5.

DESCRIPTION		DRAWING NO.		PART NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 1148)					
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	0 TO 1/8	±.005	±.005	1/8 TO 1/4	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1/4 TO 1/2	±.005	±.005	1/2 TO 1	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1 TO 2	±.005	±.005	2 TO 4	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	4 TO 6	±.005	±.005	6 TO 10	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	10 TO 16	±.005	±.005	16 TO 24	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	24 TO 36	±.005	±.005	36 TO 48	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	48 TO 60	±.005	±.005	60 TO 72	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	72 TO 84	±.005	±.005	84 TO 96	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	96 TO 108	±.005	±.005	108 TO 120	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	120 TO 132	±.005	±.005	132 TO 144	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	144 TO 156	±.005	±.005	156 TO 168	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	168 TO 180	±.005	±.005	180 TO 192	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	192 TO 204	±.005	±.005	204 TO 216	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	216 TO 228	±.005	±.005	228 TO 240	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	240 TO 252	±.005	±.005	252 TO 264	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	264 TO 276	±.005	±.005	276 TO 288	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	288 TO 300	±.005	±.005	300 TO 312	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	312 TO 324	±.005	±.005	324 TO 336	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	336 TO 348	±.005	±.005	348 TO 360	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	360 TO 372	±.005	±.005	372 TO 384	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	384 TO 396	±.005	±.005	396 TO 408	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	408 TO 420	±.005	±.005	420 TO 432	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	432 TO 444	±.005	±.005	444 TO 456	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	456 TO 468	±.005	±.005	468 TO 480	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	480 TO 492	±.005	±.005	492 TO 504	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	504 TO 516	±.005	±.005	516 TO 528	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	528 TO 540	±.005	±.005	540 TO 552	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	552 TO 564	±.005	±.005	564 TO 576	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	576 TO 588	±.005	±.005	588 TO 600	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	600 TO 612	±.005	±.005	612 TO 624	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	624 TO 636	±.005	±.005	636 TO 648	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	648 TO 660	±.005	±.005	660 TO 672	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	672 TO 684	±.005	±.005	684 TO 696	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	696 TO 708	±.005	±.005	708 TO 720	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	720 TO 732	±.005	±.005	732 TO 744	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	744 TO 756	±.005	±.005	756 TO 768	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	768 TO 780	±.005	±.005	780 TO 792	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	792 TO 804	±.005	±.005	804 TO 816	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	816 TO 828	±.005	±.005	828 TO 840	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	840 TO 852	±.005	±.005	852 TO 864	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	864 TO 876	±.005	±.005	876 TO 888	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	888 TO 900	±.005	±.005	900 TO 912	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	912 TO 924	±.005	±.005	924 TO 936	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	936 TO 948	±.005	±.005	948 TO 960	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	960 TO 972	±.005	±.005	972 TO 984	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	984 TO 996	±.005	±.005	996 TO 1008	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1008 TO 1020	±.005	±.005	1020 TO 1032	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1032 TO 1044	±.005	±.005	1044 TO 1056	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1056 TO 1068	±.005	±.005	1068 TO 1080	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1080 TO 1092	±.005	±.005	1092 TO 1104	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1104 TO 1116	±.005	±.005	1116 TO 1128	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1128 TO 1140	±.005	±.005	1140 TO 1152	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1152 TO 1164	±.005	±.005	1164 TO 1176	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1176 TO 1188	±.005	±.005	1188 TO 1200	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1200 TO 1212	±.005	±.005	1212 TO 1224	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1224 TO 1236	±.005	±.005	1236 TO 1248	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1248 TO 1260	±.005	±.005	1260 TO 1272	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1272 TO 1284	±.005	±.005	1284 TO 1296	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1296 TO 1308	±.005	±.005	1308 TO 1320	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1320 TO 1332	±.005	±.005	1332 TO 1344	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1344 TO 1356	±.005	±.005	1356 TO 1368	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1368 TO 1380	±.005	±.005	1380 TO 1392	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1392 TO 1404	±.005	±.005	1404 TO 1416	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1416 TO 1428	±.005	±.005	1428 TO 1440	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1440 TO 1452	±.005	±.005	1452 TO 1464	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1464 TO 1476	±.005	±.005	1476 TO 1488	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1488 TO 1500	±.005	±.005	1500 TO 1512	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1512 TO 1524	±.005	±.005	1524 TO 1536	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1536 TO 1548	±.005	±.005	1548 TO 1560	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1560 TO 1572	±.005	±.005	1572 TO 1584	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1584 TO 1596	±.005	±.005	1596 TO 1608	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1608 TO 1620	±.005	±.005	1620 TO 1632	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1632 TO 1644	±.005	±.005	1644 TO 1656	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1656 TO 1668	±.005	±.005	1668 TO 1680	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1680 TO 1692	±.005	±.005	1692 TO 1704	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1704 TO 1716	±.005	±.005	1716 TO 1728	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1728 TO 1740	±.005	±.005	1740 TO 1752	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1752 TO 1764	±.005	±.005	1764 TO 1776	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1776 TO 1788	±.005	±.005	1788 TO 1800	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1800 TO 1812	±.005	±.005	1812 TO 1824	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1824 TO 1836	±.005	±.005	1836 TO 1848	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1848 TO 1860	±.005	±.005	1860 TO 1872	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1872 TO 1884	±.005	±.005	1884 TO 1896	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1896 TO 1908	±.005	±.005	1908 TO 1920	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1920 TO 1932	±.005	±.005	1932 TO 1944	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1944 TO 1956	±.005	±.005	1956 TO 1968	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1968 TO 1980	±.005	±.005	1980 TO 1992	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	1992 TO 2004	±.005	±.005	2004 TO 2016	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	2016 TO 2028	±.005	±.005	2028 TO 2040	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	2040 TO 2052	±.005	±.005	2052 TO 2064	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	2064 TO 2076	±.005	±.005	2076 TO 2088	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	2088 TO 2100	±.005	±.005	2100 TO 2112	±.005
DIMENSIONS	APPLICABLE DIMENSION RANGE	OVER	UNDER	APPLICABLE DIMENSION RANGE	OVER
	2112 TO 2124	±.005	±.005	2124	







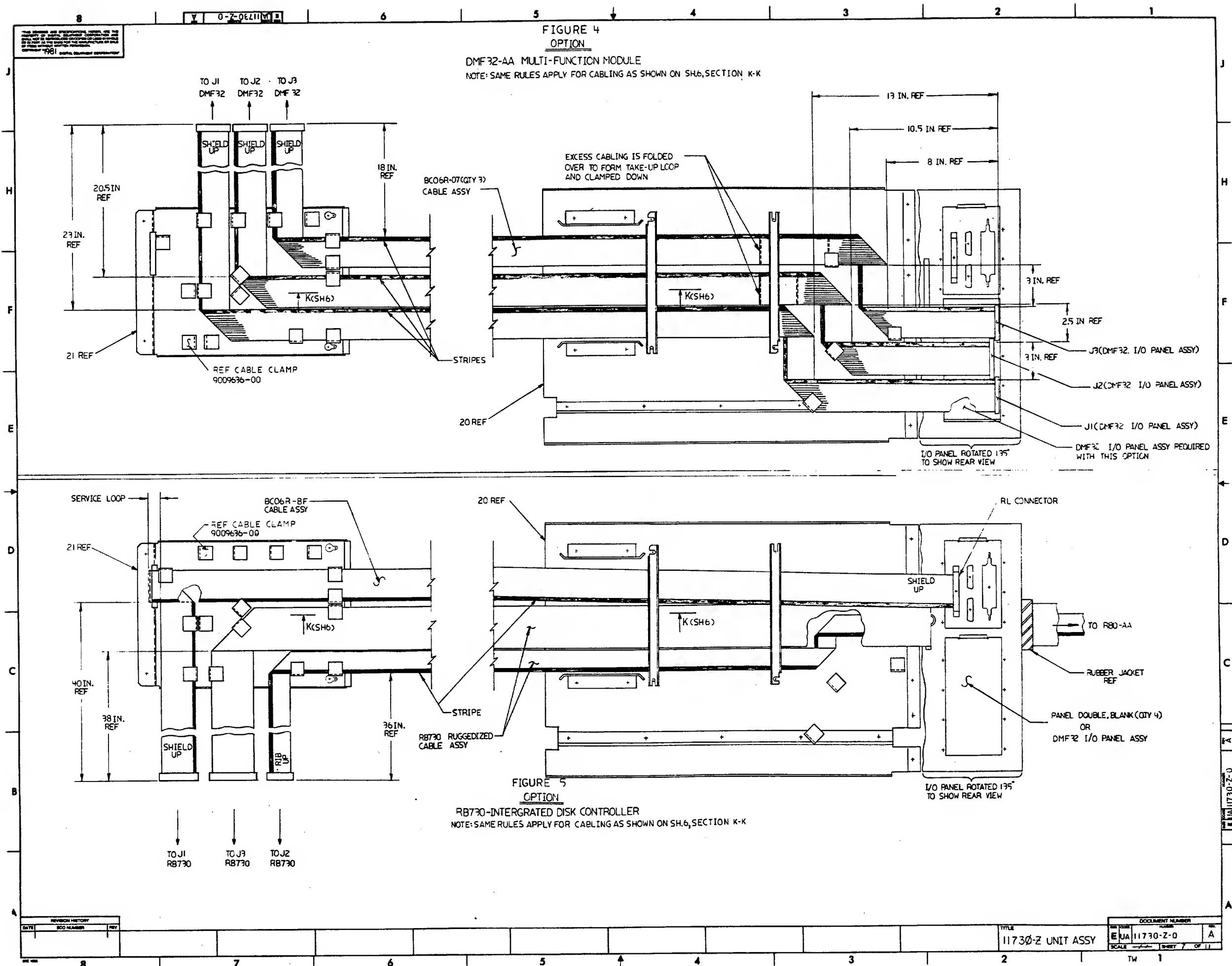


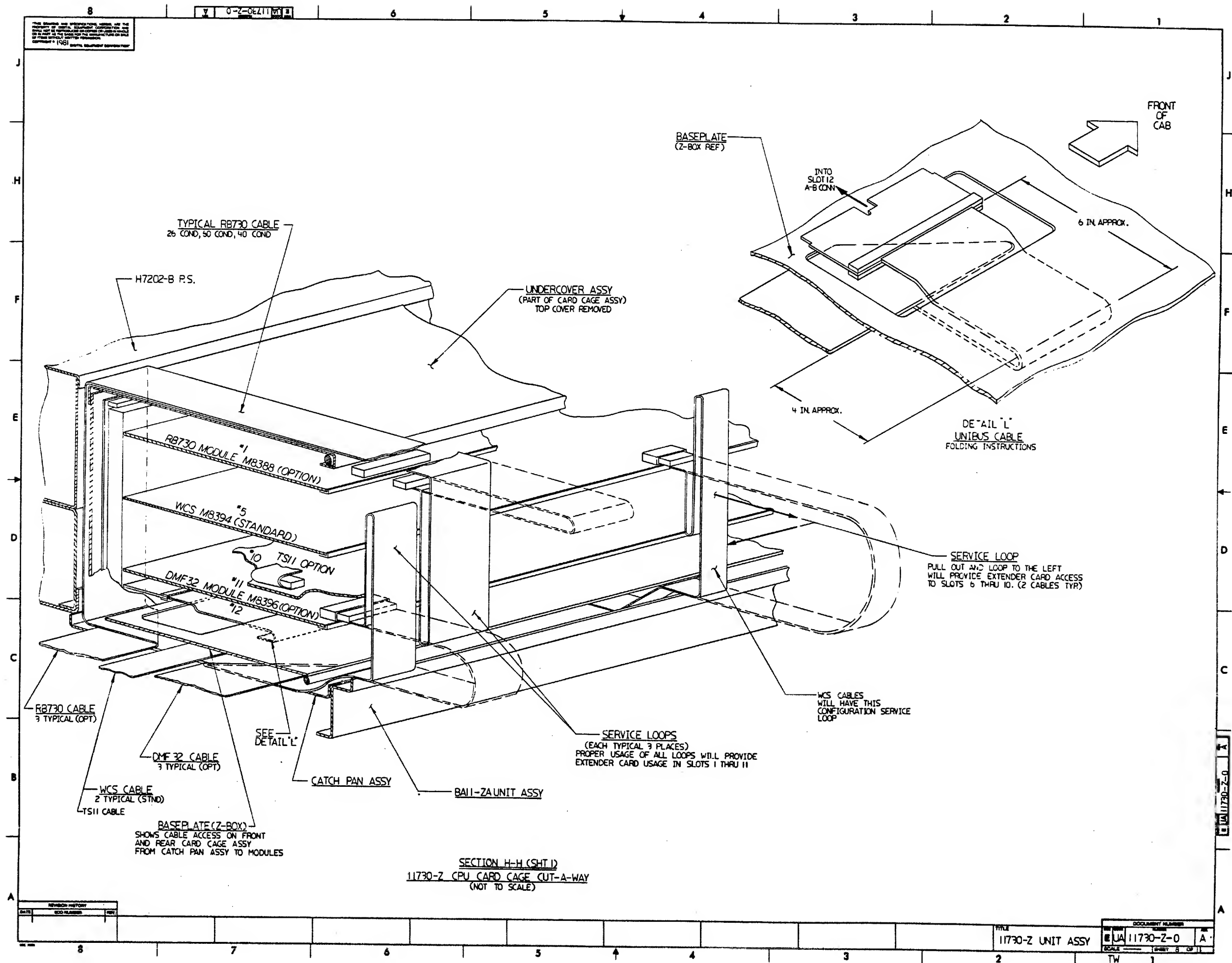
DATE	REV	DESCRIPTION

TITLE
11730-Z UNIT ASSY

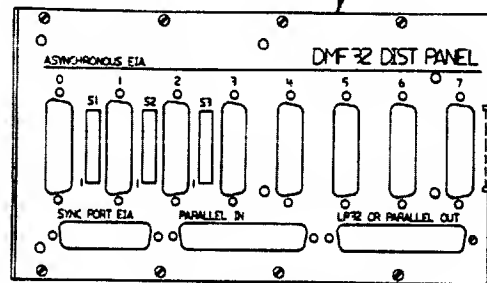
DOCUMENT NUMBER	SCALE	SHEET	OF
EJA 11730-Z-0		5	11

TW 1





7018754-00 ASSY
(PART OF DMF 32-AA OPTION)



VIEW T-T
DMF 32 OPTION
DISTRIBUTION PANEL MTG PLATE
CONNECTOR INFORMATION LEGEND

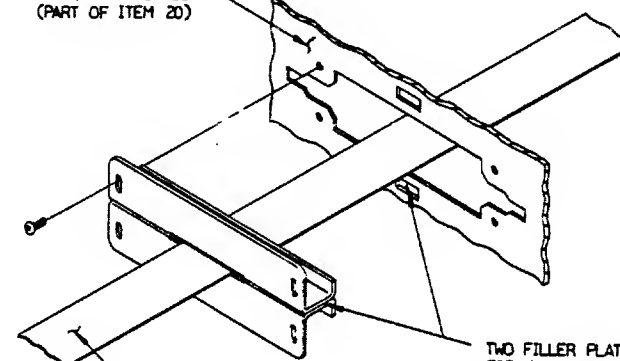
MAGNET BRKT. IS ADJUSTED
AT FINAL ASSY. FOR PROPER
LATCHING. THIS LOCKS CPU
INTO CLOSED POSITION.

VIEW N-N

20 REF

MAGNETIC LATCH
IS PRESS-FITTED
INTO RECT. SLOT.

CPU-I/O PANEL ASSY
(PART OF ITEM 20)



TWO FILLER PLATES ACT AS A CLAMP
FOR CABLE. RECT. SLOTS PROVIDE
SCREWDRIER PRESSURE POINT FOR
GUARANTEED METAL TO METAL
CONTACT FOR RFI EMISSION PROVISION.

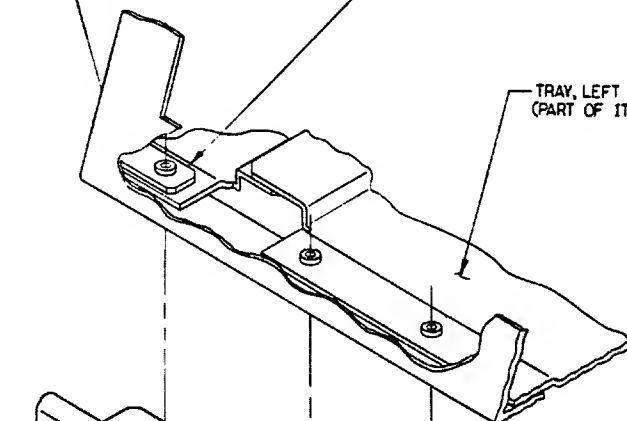
TS11 CABLE

VIEW P-P
TS11 CABLE OPTION

20 REF

NUT PLATE
(PART OF ITEM 20)

TRAY, LEFT HAND
(PART OF ITEM 20)



SEE VIEW T-T

20 REF

THROWAWAY ITEMS
WHEN USING DMF 32 OPTION
(4 PLATES)

TAB MUST BE POSITIONED AT
RIGHT ANGLE AND PLATE
LOWERED INTO POSITION FOR
PROPER METAL CONTACT.

SEE DETAIL U-U
FOR CABLE CLAMP

COVER PLATE
(PART OF ITEM 20)
THROWAWAY ITEM WHEN USING
R80 CABLE ASSY OPTION

CONSOLE PORT CONN.
(10 PIN FILTERED)

RL CONNECTION

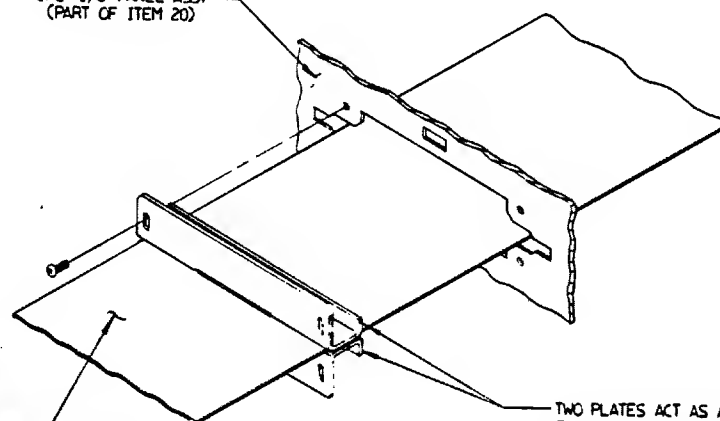
RD PORT CONN.
(25 PIN FILTERED)

FIGURE 10
FROM SH1.1 AND SH1.9

SEE VIEW P-P
FOR TS11 OPTION.

GROUND POST FOR
GROUNDING LUG, PART
OF RL CABLE ASSY

CPU-I/O PANEL ASSY
(PART OF ITEM 20)



TWO PLATES ACT AS A CLAMP
FOR THE UNIBUS CABLE. RECT
SLOTS ARE USED TO PROVIDE
REQUIRED CLAMPING PRESSURE.

UNIBUS
CABLE

VIEW R-R
UNIBUS CABLE OPTION

10-32 SCREW
REF

DETAIL U-U

99 (QTY 2)

REUSE SAME
HARDWARE

R8730 RUGGEDIZED
CABLE ASSY

TO BE USED (AS SHOWN)
WITH R80 RUGGEDIZED
CABLE.

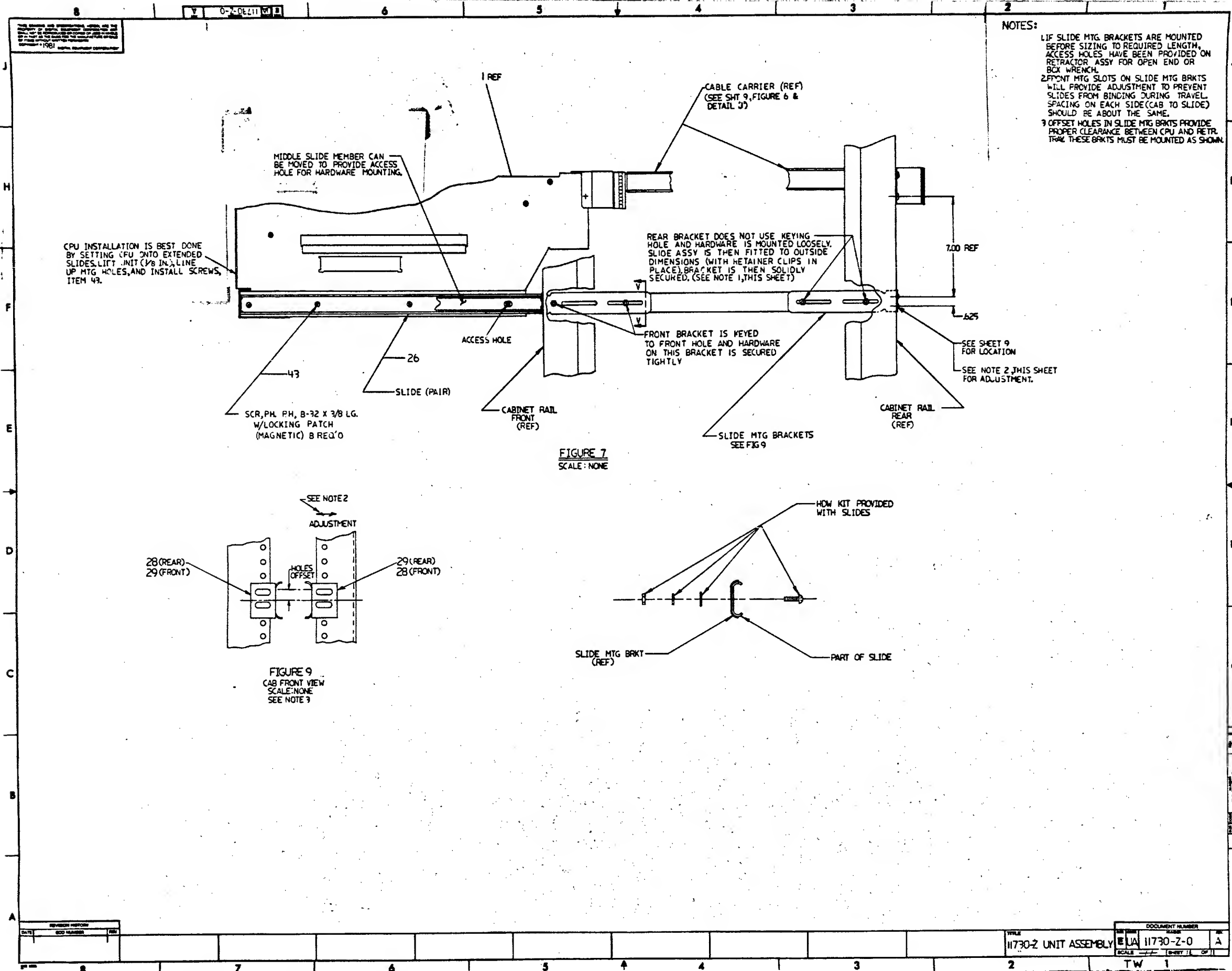
SECTION S-S
R8730 OPTION

20 REF

SHIELDED
RUBBER JACKET
TO BUTT AGAINST
THIS CORNER

11730-Z UNIT ASSY

DOCUMENT NUMBER
EJA 11730-Z-0
SCALE 1:1
Sheet 10 of 11



DATE	BY	CHKD

11730-Z UNIT ASSEMBLY	11730-Z-0	A
SCALE: 1" = 1"	SHEET 11	OF 11

SHEET A1 OF A2

REVISION HISTORY			BASIC PART NO: 11730		DRN:	P. TOUSIGNANT	DATE: 24-FEB-82	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A					TITLE PARTS LIST.			
	INITIAL	A	SECTION. VARIATION INDEX		CHK'D:	R. MORIN	DATE: 24-FEB-82	11730-Z UNIT ASSY			
			[A] ZA								
			[B]		DES.ENG.:	R. MORIN	DATE: 24-FEB-82				
			[C]					DOCUMENT NUMBER			
			[D]		RESP.ENG.:	R. MORIN	DATE: 24-FEB-82	SIZE	CODE	NUMBER	REV
			[E]		MFG.ENG.:	S. CASTIGLIONE	DATE: 24-FEB-82	K	PL	11730-Z-DBP	A
			[F]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #
					E-UA-11730-Z-0		B-DD-11730-Z		Z2842A.PLS		19
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1982. DIGITAL EQUIPMENT CORPORATION "											

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	ZA
31	31	A-PS-1700083-0-0	1700083-21	PWR CORD,TERM. 84IN,10-3 250V 6	1	
32	32	C-MD-7425927-0-0	7425927-00	GUIDE + CLAMP	1	
33	33	C-IA-7425928-0-0	7425928-00	BRACKET,CARRIER/BOX	1	
34	34	C-MD-7425929-0-0	7425929-00	BRACKET,CABINET/CARRIER	1	
35	35	A-PS-3618537-0-0	3618537-01	LABEL,MODULE UTILIZATION	1	
36	36		BET173A-DE	VAX 11730 CONSOLE	1	
37	37	A-PS-3617880-0-0	3617880-09	LABEL,NON-COMPLIANT FCC	1	
38	38	A-DC-3617674-0-0	3617674-00	LABEL,SERIAL & POWER,UNIVERSAL	1	
39	39		9009701-00	SCREW,PAN,PHIL,SEMS 6-32X .312L	2	
40	40		9006075-03	SCREW,TRUS,PHIL, 10-32X 3/4	4	
41	41		9009636-00	CLAMP, CABLE, FOR FLAT CABLE	2	
42	42		9006037-03	SCREW,TRUS,PHIL, 8-32X 3/8	7	
43	43		9010309-00	SCREW,PAN,PHIL 8-32X .375L	8	
44	44		9009700-00	SCREW,TRUS,PHIL,SEMS10-32X .500L	14	
45	45		9007786-00	RETAINER, U-NUT, 10-32	12	
46	46		9007031-00	TIE,CABLE BUNDL.DIA 0- 3/4"-101	8	
47	47		9006563-00	NUT,KEP 8-32X 11/13AF	4	
48	48	B-IA-7426335-0-0	7426335-01	STUD PLATE	4	
49	49	A-PS-1215700-0-0	1215700-04	CABLE ASSY,NYLON,11"LG	1	
50	50		9006660-00	WASHER, FLAT, .375 O.D. X .187 I	2	
51	51	A-PA-3700662-0-0	3700662-01	PKG 11730-ZACPU	1	
52	52		9006565-00	NUT,KEP 10-32X 3/8 AF	9	
53	53	C-MD-7413659-0-0	7413659-00	BRACKET SHIPPING	1	
54	54	A-PS-3613211-0-0	3613211-00	DECAL,CLEAR PREPRINTED CSA 1-1/4	1	
55	55	A-PS-3612063-0-0	3612063-00	LABEL, ADHESIVE I.O. FOR UL C	1	
56	56	D-IA-7426625-0-0	7426625-01	CLAMP,TABLE,DMF	1	
57	57	B-IA-7426723-0-0	7426723-01	BARCLAMP ASSY.	1	
58	58	D-MD-7426623-0-0	7426623-01	CLAMP,R03 TABLE	1	
59	59		9006028-01	SCREW,PAN,PHIL 6-32X1 SS	2	
60	60		9006037-01	SCREW,PAN,PHIL 8-32X 3/8 SS	2	
61	61	B-PL-11730-Z-5		11730-ZA HARDWARE KIT LIST	REF.	
*****				RELEASABLE	*****	

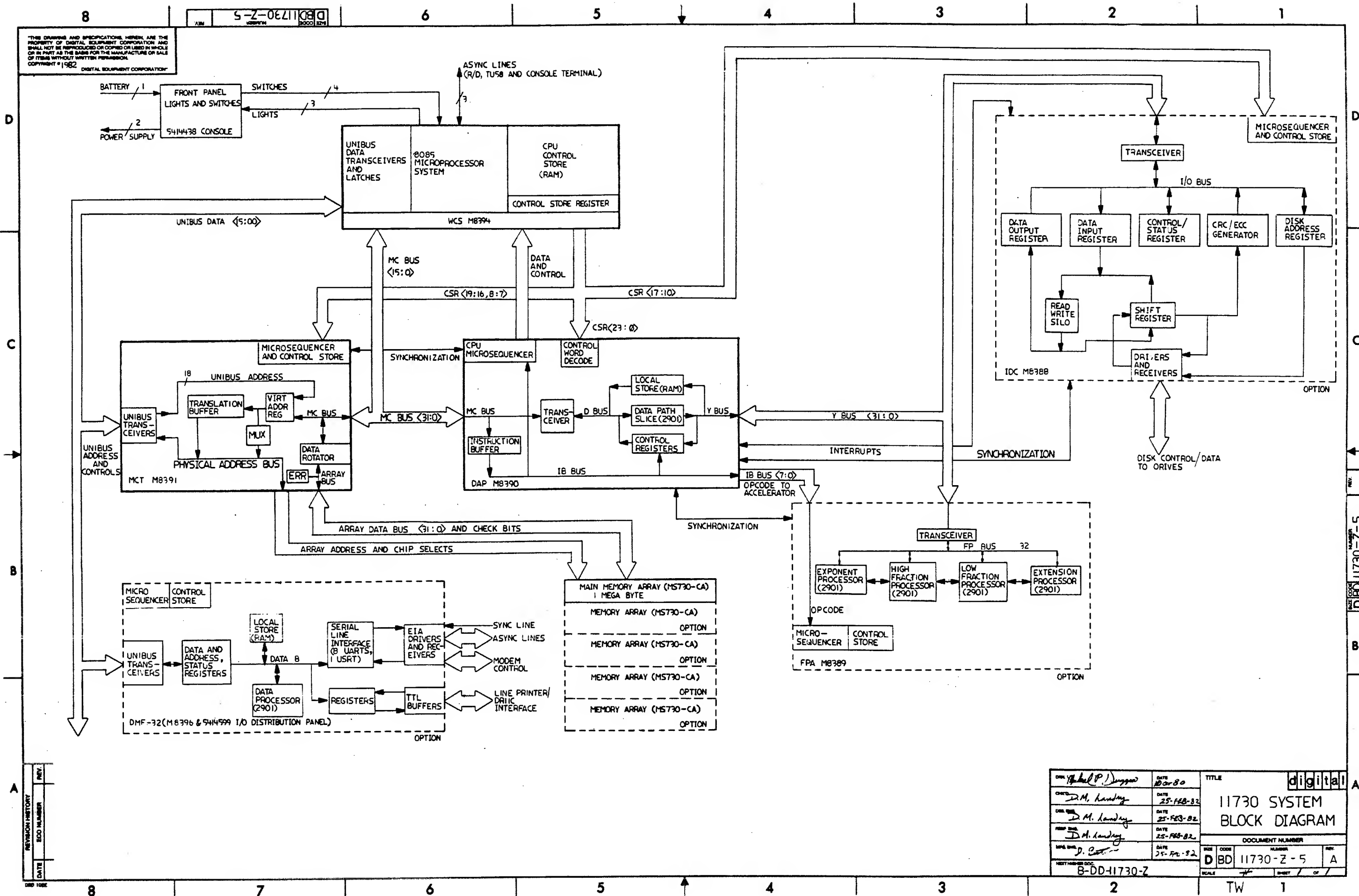
D	I	G	I	T	A	L	TITLE	11730-Z UNIT ASSY	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	11730-Z-DBP	A

DIGITAL EQUIPMENT CORPORATION PARTS LIST						QUANTITY / VARIATION								NOTES:		
MADE BY R.P. MORIN DATE 15FEB82		CHECKED DATE <i>R.P. Morin</i>		SECTION		11730-ZA										
ENG R.P. MORIN DATE 15FEB82		PROD <i>S.D. Castylin</i> DATE 25FEB82		ISSUED SECTION												
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION													
1	E-UA-11730-Z-0	11730-ZA	11730-Z UNIT ASSY			1										CPU BOX ONLY
2	E-AD-7018779-0-0	7018779-00	CPU CABLE RETRACTOR ASSY			1										
3	C-IA-7018718-0-0	7018718-00	PRESSURE SHEET ASSY			1										
4	D-MD-7425374-0-0	7425374-00	SLIDE MTC BRKT , LEFT			2										
5	D-MD-7425374-0-0	7425374-01	SLIDE MTC BRKT , RIGHT			2										
6	C-MD-7425927-0-0	7425927-00	GUIDE & CLAMP			1										
7	C-IA-7425928-0-0	7425928-00	BRKT , CARRIER/BOX			1										
8	C-MD-7425929-0-0	7425929-00	BRKT , CAB/CARRIER			1										
9	B-IA-7426335-0-0	7426335-01	STUD PLATE			4										
10	D-IA-7426623-0-0	7426623-01	CLAMP , RSO CABLE			1										
11	D-IA-7426625-0-0	7426625-01	CLAMP , DMF CABLE			1										
12	B-IA-7426723-0-0	7426723-01	BAR CLAMP ASSY			1										
13	C-MD-7413659-0-0	7413659-00	BRKT , SHIPPING			1										
14		1215700-04	CABLE , FERRULED			1										
15		1218166-00	SLIDE (PAIR) W/HDW KITS (4)			1										
16		1219020-00	CARRIER , CABLE			1										
17		1700083-21	AC LINE CORD (240V)			1										
18		1700083-22	AC LINE CORD (120V)			1										
19		3615809-00	MEDIA CARTRIDGE , TU58-K			1										
20		3700662-01	PACKAGING , CPU , 11730-ZA			1										
21	B-PL-11730-Z-3	11730-Z-3	HARDWARE KIT BAG			1										

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"

TITLE SHIPPING LIST ,11730-Z		ASSY NO. B-DD-11730-Z		SIZE B	CODE PL	NUMBER 11730-Z-2	REV. A
SHEET 1 OF 1		INSERTION PARTS LIST DATA BASE REV					

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION												NOTES:					
MADE BY DATE		R.P.MORIN 15FEB82		CHECKED DATE		R.P.MORIN		SECTION													
ENG DATE		R.P.MORIN 15FEB82		PROD. DATE		S.A. Castylin 25FEB82		ISSUED SECTION													
ITEM NO.		DRAWING NO.		PART NO.		DESCRIPTION		REF DESIGNATION													
1.				9006037-03		SCR. TRUS, PHIL, 8-32x3/8L		5		(ITEM 42) TO MOUNT PRESSURE SHEET AND CARRIER/BOX BRKT											
2.				9010309-00		SCR, PAN, PHIL, 8-32x3/8L W/PATCH		8		(ITEM 43) TO MOUNT SLIDES TO CPU											
3.				9009700-00		SCR, TRUS, PHIL SEMS, 10-32x1/2L		14		(ITEM 44) TO MOUNT SLIDE MTG BRKTS CAB/CARRIER BRKT, CARRIER/BOX BRKT											
4.				9007786-00		RETAINER, U-NUT, 10-32		12		(ITEM 45) TO MOUNT SLIDE MTG BRKTS AND CARRIER/CAB BRKTS											
5.				9007031-00		TIE, CABLE		8		(ITEM 46) TO TIE CABLES TO CABLE CARRIER											
6.				9006563-00		NUT, KEP, 8-32		2		(ITEM 47) FOR TETHER LINE											
7.				9006660-00		WASHER, FLAT, #8		2		(ITEM 50) FOR TETHER LINE											
8.				9006565-00		NUT, KEP, 10-32		1		(ITEM 52) FOR SHIPPING BRKT											
9.				9006028-01		SCR, PAN, PHIL, 6-32x1.0L		2		(ITEM 59) BAR CLAMP TO DMF CABLE CLAMP											
10.				9006037-01		SCR, PAN, PHIL, 3/8L		2		(ITEM 60) FOR TETHER LINE											
11.				9906557-03		BAG, POLYETHYLENE, RECLOSABLE *		1													
						* BAG TO BE MARKED PER DEC STD 178.															
E.C.O. NO.																					
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"						TITLE HARDWARE KIT LIST, 11730-Z				ASSY NO. B-DD-11730-Z				SIZE B		CODE PL		NUMBER 11730-Z-3		REV. A	
						SHEET 1				OF 1				INSERTION PARTS LIST DATA BASE REV							



DESIGNED BY <i>Michael P. Duggan</i>	DATE <i>10-2-80</i>	TITLE digital
CHECKED BY <i>D.M. Landrey</i>	DATE <i>25-FEB-82</i>	11730 SYSTEM BLOCK DIAGRAM
DESIGNED BY <i>D.M. Landrey</i>	DATE <i>25-FEB-82</i>	
DESIGNED BY <i>D.M. Landrey</i>	DATE <i>25-FEB-82</i>	
DATE <i>25-FEB-82</i>	DATE <i>25-FEB-82</i>	
DATE <i>25-FEB-82</i>	DATE <i>25-FEB-82</i>	DOCUMENT NUMBER D BD 11730-Z-5
B-DD-11730-Z		SCALE 1" = 1"

"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN."

DRAWING DIRECTORY

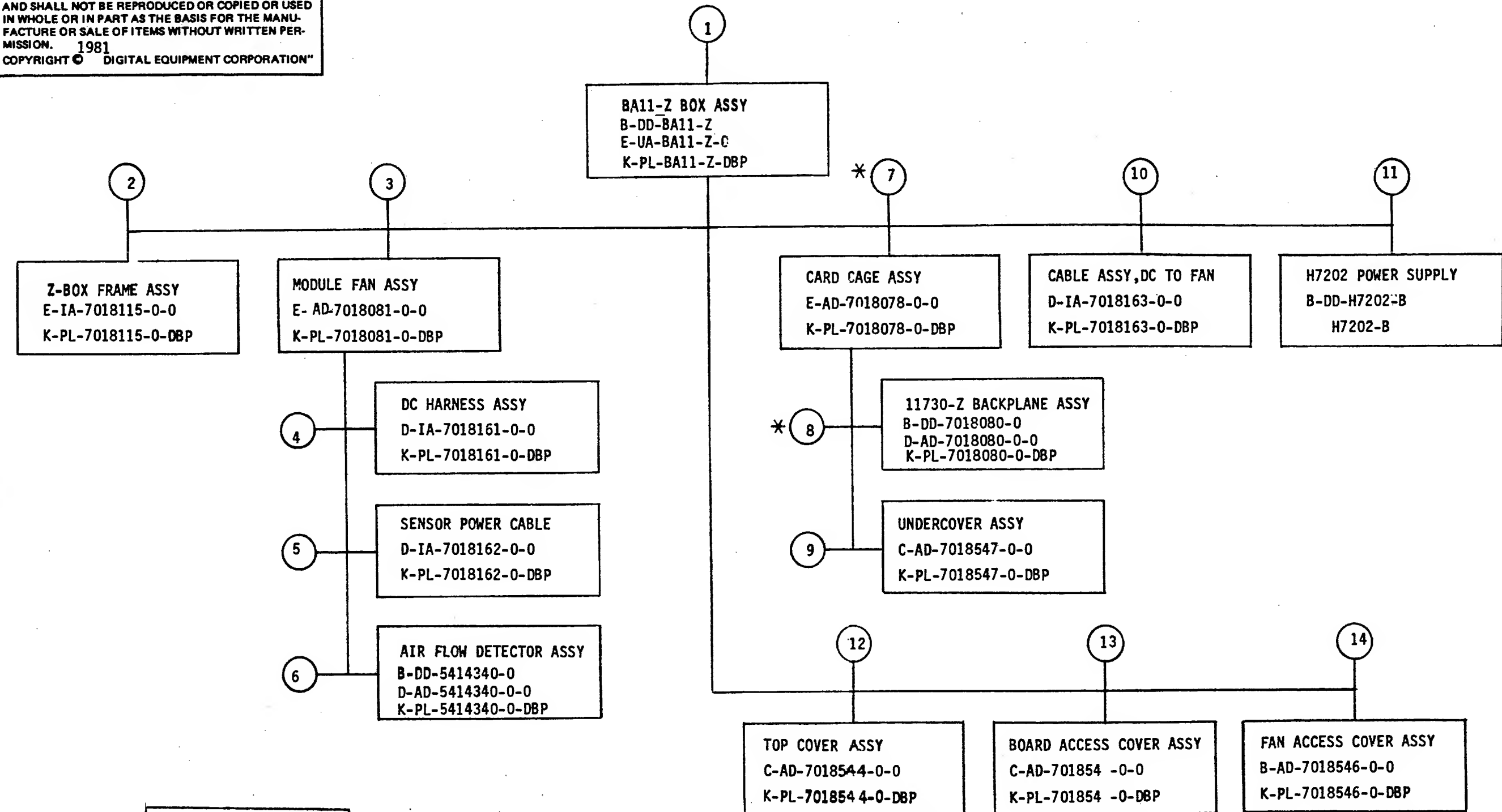
THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981 DIGITAL EQUIPMENT CORPORATION.

[illegible]

REVISIONS						USED ON OPTION/MODEL	DRN.	DATE	TITLE
	REV.						A. ROCHA	3AUG81	<div style="text-align: center;">BAl1-Z BOX ASSY</div>
	CHANGE NO.					11730	CHK'D. B.MORIN <i>BPM</i>	DATE 3AUG81	
							PROJ. ENG. B.MORIN <i>BPM</i>	DATE 3AUG81	
						SHEET 1 OF 4	PROD. <i>J.Castiglione</i>	DATE <i>25/1982</i>	
	CHK							DIST.	

tw

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. 1981
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"



TITLE	2	SIZE	CODE	NUMBER	REV
BA11-Z BOX ASSY	4	B	DD	BA11-Z	A
SHEET	OF				

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP01266	FIELD MAINT. PRINT SET (MP)	-
	B-TC-BA11-Z-1	FIELD MAINT. PRINT SET (TC)	-
	B-DD-BA11-Z	BA11-Z BOX ASSY-DRAWING DIRECTORY	-
	E-UA-BA11-Z-0	BA11-Z BOX ASSY-UNIT ASSY	E/M
	K-PL-BA11-Z-DBP	BA11-Z BOX ASSY-PARTS LIST Z1862	-
	D-MD-7424850-0-0	BAFFLE , END PLATE	M
	C-IA-7425373-0-0	CLAMP , POWER SUPPLY	M
	C-MD-7425571-0-0	WIRE , SUPPORT	M
	A-PS-1217556-0-0	FAN DC	E/M
	A-PS-1700083-0-0	AC LINE CORD	E/M
2	E-IA-7018115-0-0	Z-BOX FRAME ASSY	M
	K-PL-7018115-0-DBP	Z-BOX CHASSIS ASSY-PARTS LIST Z1858	-
	E-IA-7424819-0-0	BASEPLATE	M
	K-PL-7424819-0-DBP	BASEPLATE-PARTS LIST Z1859	M
	E-IA-7424820-0-0	WALL , LEFT SIDE	M
	E-IA-7424821-0-0	WALL , RIGHT SIDE	M
	E-MD-7424822-0-0	SHELF SUPPORT	M
	E-MD-7424823-0-0	BRACE FRONT	M
3	E-AD-7018081-0-0	MODULE FAN ASSY	E/M
	K-PL-7018081-0-DBP	MODULE FAN ASSY-PART LIST	-
	D-MD-7424831-0-0	FAN HOUSING	M
	C-MD-7424849-0-0	FAN BAFFLE	M
	A-PS-1217556-0-0	FAN DC	M
4	D-IA-7018161-0-0	DC HARNESS ASSY	E/M
	K-PL-7018161-0-DBP	DC HARNESS ASSY-PARTS LIST Z1851	-
5	D-IA-7018162-0-0	SENSOR POWER CABLE	E/M
	K-PL-7018162-0-0	SENSOR POWER CABLE-PARTS LIST Z1862	-
6	B-DD-5414340-0	AIR FLOW DETECTOR ASSY	E/M
	D-UA-541434-0-0	AIR FLOW DETECTOR ASSY	E/M
	K-PL-5414340-0-DBP	AIR FLOW DETECTOR ASSY - PARTS LIST	-
	D-CS-5414340-0-1	AIR FLOW DETECTOR ASSY - CIRCUIT SCHEM.	E
7	E-AD-7018078-0-0	11730-Z CARD CAGE ASSY *	M
	K-PL-7018078-0-DBP	11730-Z CARD CAGE ASSY-PARTS LIST Z1828	-
	C-MD-7423051-0-0	ROD , SUPPORT	M
	E-IA-7424830-0-0	CARD CAGE (FRONT AND REAR)	M
	B-MD-7425257-0-0	CARD GUIDE,SINGLE SHORT	M
	A-PS-1212405-0-0	CARD GUIDE,NYLON	M
8	B-DD-7018080-0-0	11730-Z BACKPLANE ASSY-DRAWING DIRECTORY	E/M
	D-AD-7018080-0-0	11730-Z BACKPLANE ASSY *	E/M
	K-PL-7018080-0-DBP	11730-Z BACKPLANE ASSY-PARTS LIST Z0715	-
	K-WL-7018080-0-1	11730-Z BACKPLANE ASSY - WIRELIST	E
	A-WT-7018080-0-2	11730-Z BACKPLANE ASSY - REV STATUS	-
	A-DC-7411881-0-0	LABEL,AWT REV STATUS	-
	D-MD-7425344-0-0	PROTECTIVE COVER	M
	C-MD-7425372-0-0	SPACER	M
	A-PS-1700238-0-0	CIRCUIT,FLEX,SIGNAL	E/M
	A-PS-1700239-0-0	CIRCUIT,FLEX,POWER	E/M
	E-MD-5014598-0-0	DRILL AND ETCH BOARD	E/M
9	C-AD-7018547-0-0	UNDERCOVER ASSY	M
	K-PL-7018547-0-DBP	UNDERCOVER ASSY-PARTS LIST Z2449	-
	E-MD-7424829-0-0	UNDERCOVER	M
		* SPECIFIC FOR 11730-Z ASSY.	

TYPE: E ELECTRICAL
M MECHANICAL
E/M ELECTRO/MECHANICAL

TITLE
BA11-Z BOX ASSY

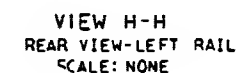
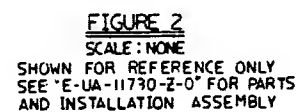
SHEET 3 OF 4

SIZE CODE
B DD

NUMBER
BA11-Z

REV
A

74

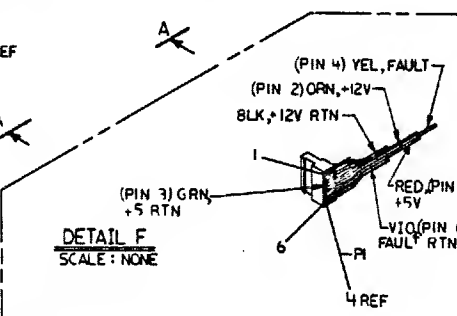
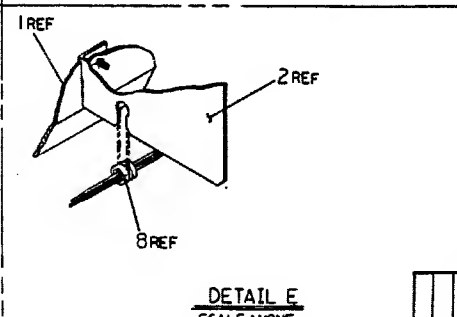
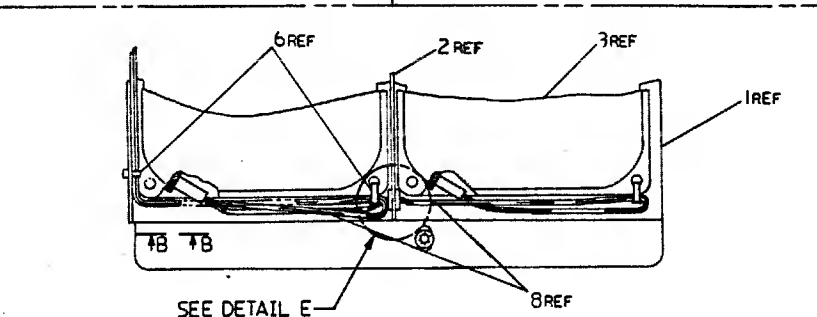
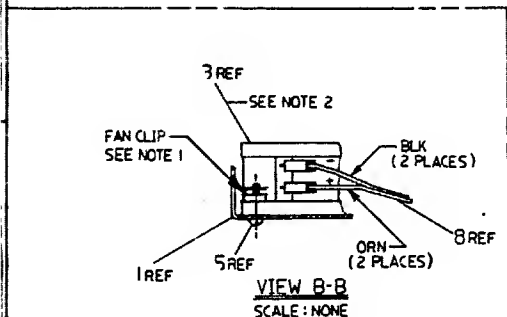
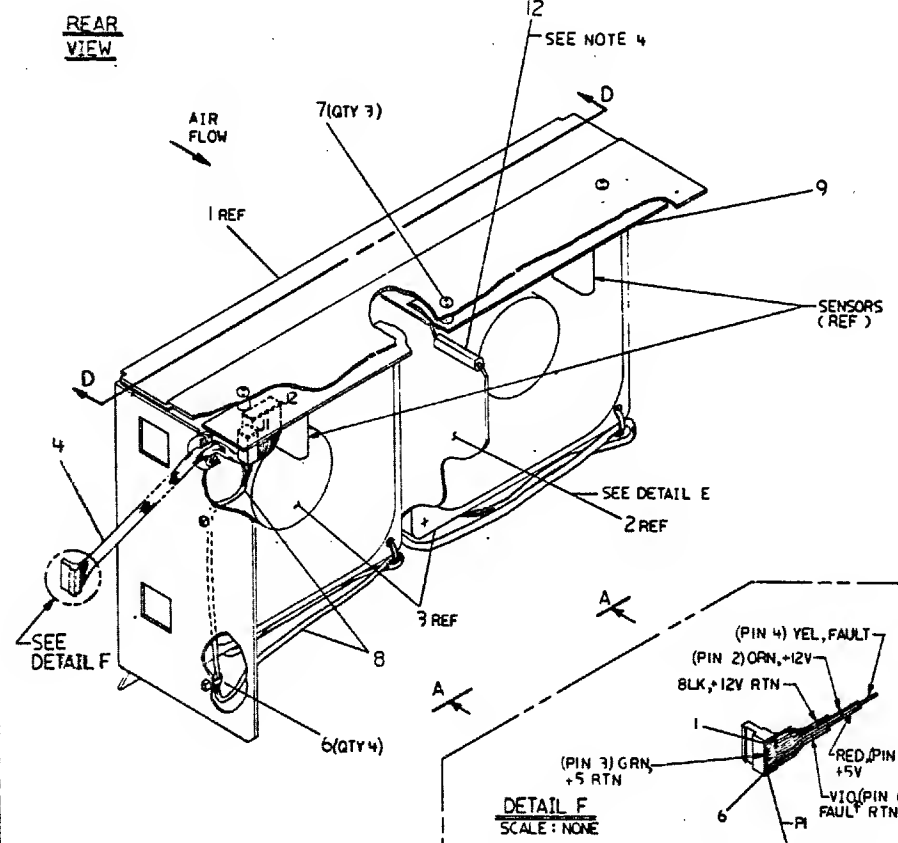
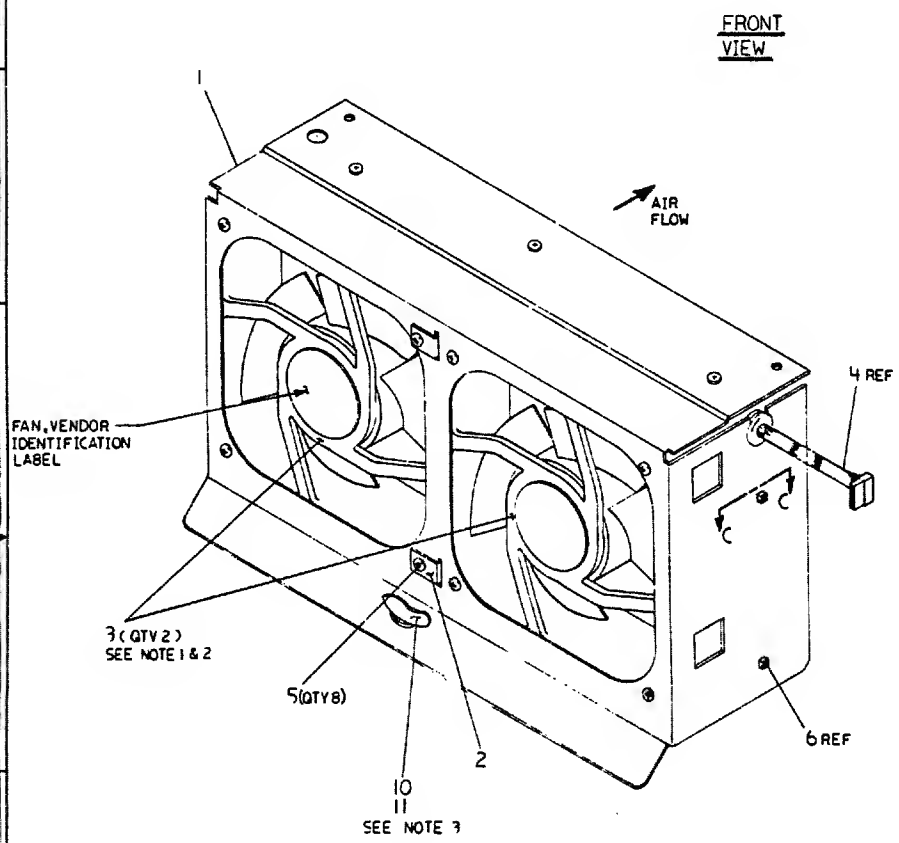
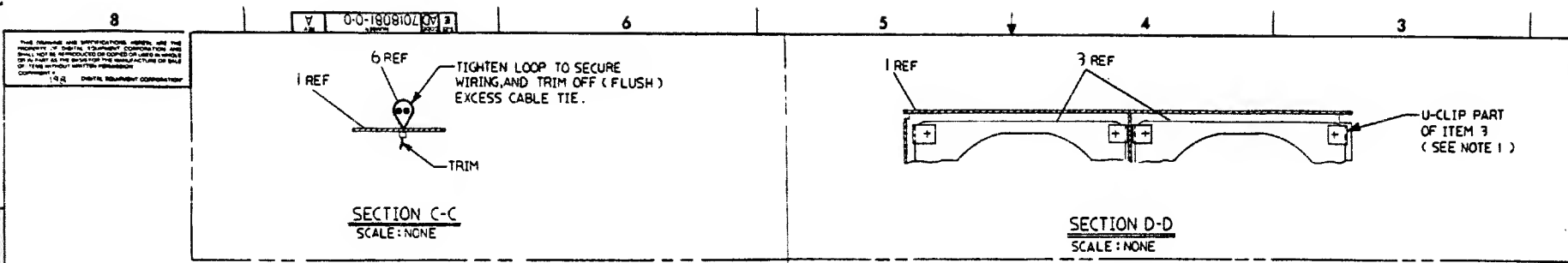


SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QA	ZB
1	1	E-IA-7018115-0-0	7018115-00	Z-BOX FRAME ASSY.	1	1
2	2	B-DD-H7202-0-0	H7202-8	NEBULA POW SUP: H7200,H7211,H721	1	1
3	3	F-AD-7018081-0-0	7018081-00	FAN ASSY	1	1
4	4	F-AD-7018078-0-0	7018078-00	CARD CAGE ASSY	1	1
5	5	C-AD-7018544-0-0	7018544-00	TOP COVER ASSY.	1	1
6	6	C-AD-7018545-0-0	7018545-00	BOARD ACCESS COVER ASSY.	1	1
7	7	B-AD-7018546-0-0	7018546-00	FAN ACCESS COVER ASSY.	1	1
8	8	D-IA-7018163-0-0	7018163-00	CABLE DC TO FAN	1	1
9	9	D-MD-7424850-0-0	7424850-00	PLATE, BAFFLE END	1	1
10	10	C-IA-7425373-0-0	7425373-00	CLAMP, PS	2	2
11	11	B-MD-7425571-0-0	7425571-00	SUPPORT WIRE	2	2
12	12		1217556-00	FAN, 108CFM, 12VDC, AXIAL, 4.5"DIA	1	1
13	13		1700083-22	PWR CORD, TERM. B4IN, 18-3 125V 15	0	0
14	14		1700083-21	PWR CORD, TERM. B4IN, 18-3 250V 6	0	0
15	15	BLANK		*** THIS ITEM IS NOT USED ***	1	1
16	16		9006565-00	NUT, KEP 10-32X 3/8 AF	4	4
17	17		9007015-00	GROMMET, RUBBER	1	1
18	18		9007035-00	GROMMET #122-37-1500	2	2
19	19		9008196-01	RECP. CLIP-ON F/1/4 TURN FASTNR	4	4
20	20		9009984-01	SCREW, SEMS, PHILLIPS PAN HD 6-	4	4
21	21		9009988-08	SCREW, SEMS, SLOTTED HEX HD B-32	4	4
22	22		9010174-01	SCREW, PAN, PHIL SEMS B-32X .31 L	12	12
23	23		9009157-00	ADH, LIQ. RM. TEMP CURING COLORLESS	A/R	A/R
24	24		9009636-00	CLAMP, CABLE, FOR FLAT CABLE	4	4

REVISION HISTORY			BASIC PART NO: DBA11		DRN: A. ROCHA		DATE: 16-NOV-81		DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF A		CHK'D: R. MORIN		DATE: 16-NOV-81		TITLE PARTS LIST	
---	INITIAL	XA	SECTION. VARIATION INDEX		---		---		BA11-Z BOX ASSY	
---	INITIAL	A	[A] ZA,ZB		---		---		---	
			[B]		DES.ENG.: R. MORIN		DATE: 16-NOV-81		---	
			[C]		---		---		DOCUMENT NUMBER	
			[D]		RESP.ENG.: R. MORIN		DATE: 16-NOV-81		SIZE CODE NUMBER REV	
			[E]		---		---		---	
			[F]		MFG.ENG.: S. CASTIGLIONE		DATE: 30-JUL-81		K PL BA11-Z-DBP A	
			---		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			---		E-AD-BA11-Z-0		E-UA-11730-Z-0		Z1B62A.PLS 14	

"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"



- NOTES:**
- ITEM 3, 12V DC FAN, WILL BE SUPPLIED BY VENDOR WITH 4 (FOUR) APPROPRIATE FAN MOUNTING CLIPS. USING BOSS MOUNTING CLIP (REF 900965-00), THERE IS NO PROBLEM. USING U-CLIP TYPE (REF 9009262-00) ON CERTAIN FANS, POSITIONING OF CLIP PER SECTION D-D ON UPPER ROW OF CORNERS IS MANDATORY FOR INSTALLATION OF THIS ASSEMBLY INTO 3411-Z BOX ASSEMBLY.
 - INCORRECT POLARITY CONNECTIONS ON DC FAN IS PROTECTED BY THE FAN. FAN WILL NOT OPERATE IF IMPROPERLY CONNECTED.
 - TO PROPERLY INSTALL ITEM 11 ONTO ITEM 10, USE INSTALLATION TOOL 82-0-14719-11 (SOUTHCO) OR EQUIVALENT.
 - ITEM 12 RUBBER O CHANNEL IS TO BE CUT TO 1.25 ±.06 INCH LONG. THIS ITEM IS INSERTED UNTO ITEM 2 AND BUTTED AGAINST SENSOR BOARD.

NOTE: FOR PARTS LIST REFER TO K-PL-7018081-0-DBP.

REVISIONS

NO.	DESCRIPTION	DATE
1	REVISION 1	10/1/81
2	REVISION 2	10/1/81

DESCRIPTION		DRAWING NO.	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 115)				
FINISH	ANODIZE	APPLICABLE DIMENSIONS	TOLERANCES	
QUANTITY & VARIATION	1	1.00	0.005	0.002
THIRD ANGLE PROJECTION	DATE	10/1/81	TITLE	
DO NOT SCALE DRAWING	DATE	10/1/81	MODULE FAN ASSY	
REMOVE BURRS AND BREAK SHARP CORNERS	DATE	10/1/81	DOCUMENT NUMBER	
SEE PARTS LIST	DATE	10/1/81	EAD 7018081-0-0 A	
FORM	DATE	10/1/81	E-1A-B111-Z-D	

AUTOMATED BY FRTLST.3P(44)

P A R T S L I S T

SHEET A1 OF A1

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
				00
1	D-MD-7424831-0-0	7424831-00	HOUSING, FAN	1
2	C-MD-7424849-0-0	7424849-00	BAFFLE, FAN	1
3		1217556-00	FAN, 103CFM, 12VDC, AXIAL, 4.5"DIA	2
4	D-IA-7018162-0-0	7018162-00	SENSOR PWR CABLE	1
5		9009994-01	SCREW, SEMS, PHILLIPS PAN HD, 6-	8
6		9007031-00	TIE, CABLE BUNDL, DIA 0- 3/4"=101	4
7		9009643-02	SCREW, PAN, SLOT, SEMS 4-40X .250L	3
8	D-IA-7018161-0-0	7018161-00	DC HARNESS ASSY	1
9	D-AD-5414340-0-0	5414340-00	AIR FLOW SENSOR	1
10		9000026-05	FASTNR, 1/4 TURN, WING HD	1
11		9010308-00	RETAINER, PUSH-ON SS/PAS	1
12	SEE NOTE	9009533-00	CHANNEL "U" EXTRUDED RUBBER	1

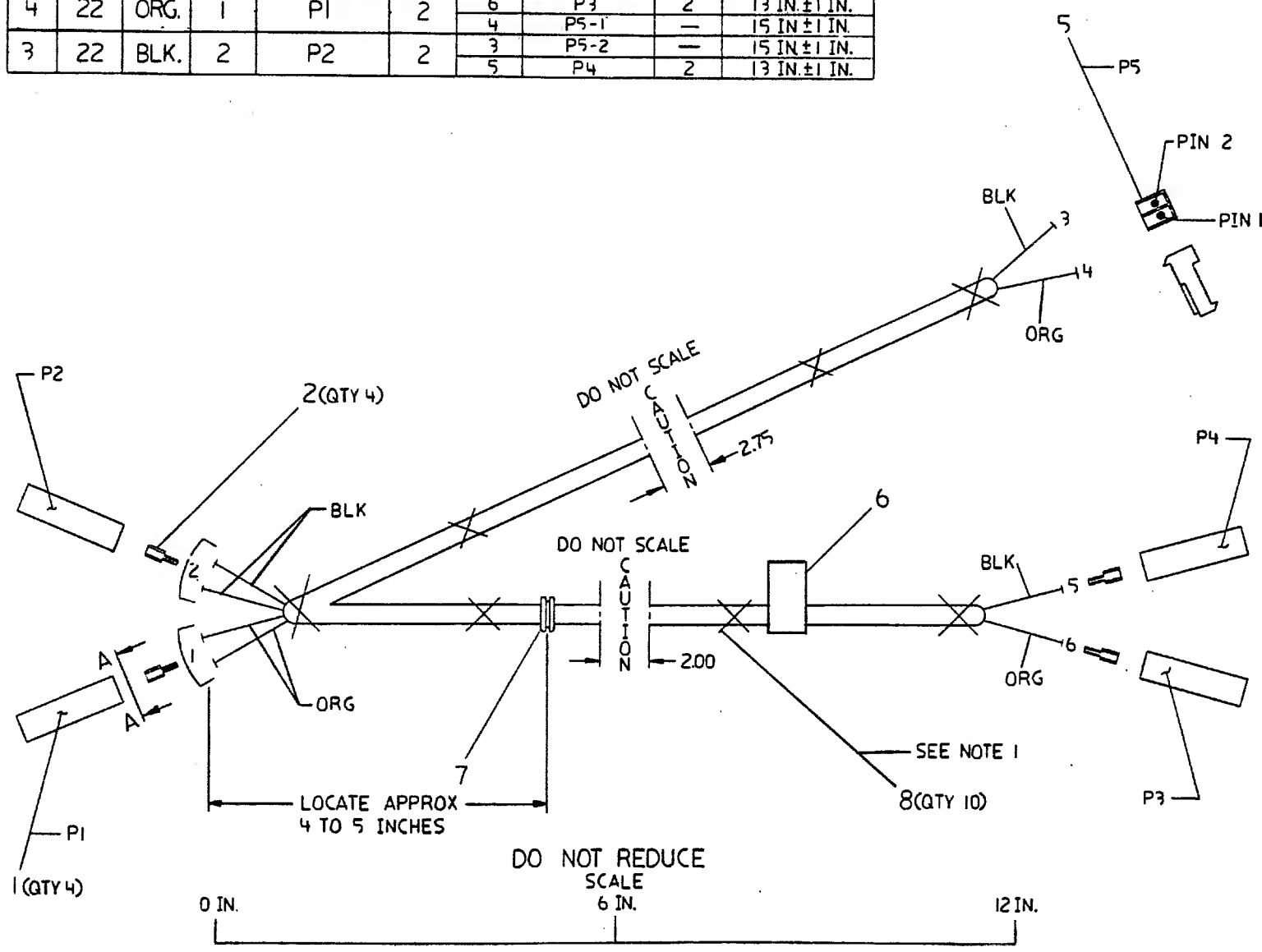
13 NOTE: CUT LENGTH OF ITEM 12 TO BE 1.25+- .06 INCH

REVISION HISTORY		BASIC PART NO: 7018081		DRN: P. TOUSIGNANT	DATE: 28-JUL-81	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: A. ROCHA	DATE: 28-JUL-81	TITLE		PARTS LIST	
	INITIAL	A	SECTION. VARIATION INDEX			MODULE FAN ASSY			
			(A) 00						
			(B)	DES.ENG.: R. MORIN	DATE: 28-JUL-81				
			(C)						
			(D)	RESP.ENG.: R. MORIN	DATE: 28-JUL-81				
			(E)						
			(F)	MFG.ENG.: E. PARIS	DATE: 28-JUL-81	K	PL	7018081-0-DBP	A
				ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #	
				E-AD-7018081-0-0	E-UA-8A11-Z-0	21848A.PLS		14	
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"									

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION

WIRE TABLE									
ITEM NO.	DESCRIPTION		FROM			TO			LENGTH
			POINT	CONNECTION	WITH	POINT	CONNECTION	WITH	
4	22	ORG.	1	P1	2	6	P3	2	13 IN. ± 1 IN.
3	22	BLK.	2	P2	2	4	P5-1	—	15 IN. ± 1 IN.
						3	P5-2	—	15 IN. ± 1 IN.
						5	P4	2	13 IN. ± 1 IN.

- NOTES:
1. ATTACH CABLE TIES (ITEM 8) APPROX. EVERY 3 IN. AS SHOWN, AND AT EVERY BREAKOUT POINT.
 2. ALL WIRE ENDS TO BE STRIPPED, EXCEPT FOR POINTS 3 AND 4.



SEE OFF SHEET PARTS LIST
K-PL-7018161-0-DBP

REVISION HISTORY	
REV	A
DATE	1/18/80
BY	W. J. Sullivan
CHKD BY	R. J. Sullivan
DATE	1/18/80

DESCRIPTION		DRAWING NO.	PART NO.	DCM NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)						
INCHES TOLERANCES	ANGLES ± 9° 30'	APPLICABLE DIMENSION RANGE	DIMENSION RANGE IN INCHES			
X = ± .1	SURFACE QUALITY	(CHECK ONE)	OVER 0.2 TO 0.2	OVER 0.2 TO 0.2	OVER 0.2 TO 0.2	OVER 0.2 TO 0.2
XX = ± .02			OVER 0.2 TO 0.2	OVER 0.2 TO 0.2	OVER 0.2 TO 0.2	OVER 0.2 TO 0.2
XXX = ± .005			OVER 0.2 TO 0.2	OVER 0.2 TO 0.2	OVER 0.2 TO 0.2	OVER 0.2 TO 0.2
THIRD ANGLE PROJECTION	DATE	1/18/80	TITLE			
DO NOT SCALE DRAWING	DATE	1/18/80	DC HARNESS ASSY			
REMOVE BURRS AND BREAK SHARP CORNERS	DATE	1/18/80	DOCUMENT NUMBER			
MATERIAL	DATE	1/18/80	DIA 7018161-0-0 A			
SEE PARTS LIST	DATE	1/18/80	E-AD-7018081-0-0			
FINISH	DATE	1/18/80	TW			

AUTOMATED BY PRTLST.3F(44)

PARTS LIST

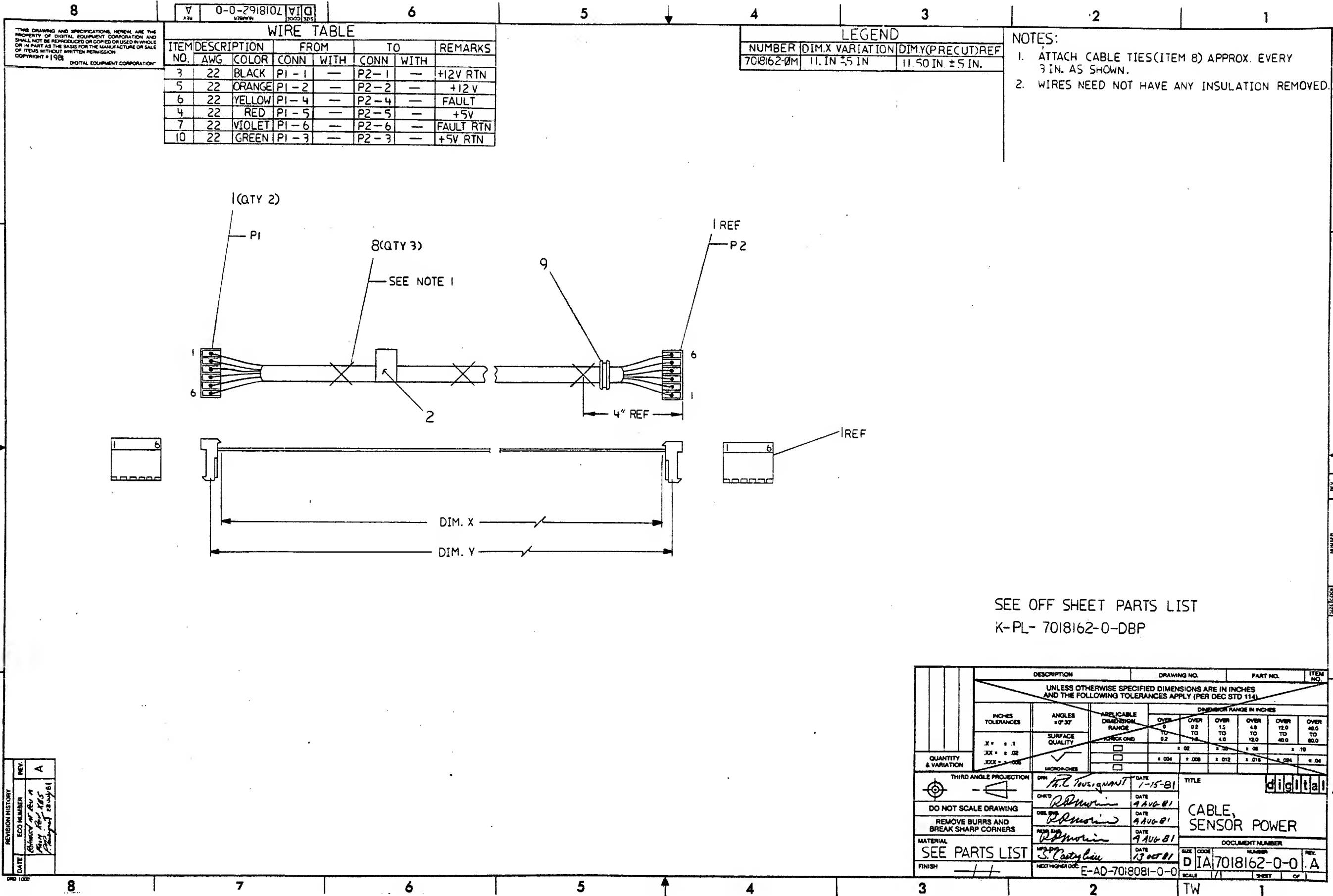
QUANTITY PER VARIATION
00

SHEET A1 OF A1

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
1	1	1210820-01	SOCKET HOUSING	1
2	2	1210820-03	CONN. TERMINAL, LOOSE	1
3	3	9107736-00	WIRE, STRND, 22AWG, XLPVC UL1430 (1
4	4	9107796-33	WIRE, STRND, 22AWG, XLPVC UL1430 (1
5	5	1218296-03	CONN. 100 25KT STRAIGHT	1
6	6	9009255-01	LABEL, POWER SUPPLY, 2-7 8" LG X	1
7	7	9007013-00	GROMMET, RUBBER	1
8	8	9007031-00	TIE, CABLE BUNDL.DIA 0- 3/4"=101	10

9 NOTE: 1. ITEM 3 REQUIRES A 13 INCH AND A 15 INCH LENGTH.
10 NOTE: 2. ITEM 4 REQUIRES A 13 INCH AND A 15 INCH LENGTH.

REVISION HISTORY		BASIC PART NO: 7018161		DRN: P. TOUSIGNANT		DATE: 23-JUL-81		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	A. ROCHA	DATE:	23-JUL-81	TITLE PARTS LIST	
	INITIAL	A	SECTION. VARIATION INDEX					DC HARNESSS ASSY	
			(A) 00						
			(B)	DES.ENG.: R. MORIN		DATE: 23-JUL-81			
			(C)					DOCUMENT NUMBER	
			(D)	RESP.ENG.: R. MORIN		DATE: 23-JUL-81		SIZE CODE NUMBER REV	
			(E)	MFG.ENG.: S. CASTIGLIONE		DATE: 23-JUL-81		K FL 7018161-C-DBP A	
			(F)	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
				0-1A-7018161-0-0		E-AD-7018081-0-0		21851A.PLS 15	
<p>"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION."</p> <p>COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION</p>									



AUTOMATED BY PRTLST.3P(44)

P A R T S L I S T

SHEET A1 OF A1

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QUANTITY PER VARIATION
CM

1	1		1218296-03	CONN .100 6SKT STRAIGHT	2
10	10	SEE NOTE	9009255-01	LABEL, POWER SUPPLY 2-7/8" LG X	1
		SEE NOTE	9107796-00	WIRE, STRND, 22AWG, XLPVC UL1430 (12
		SEE NOTE	9107796-33	WIRE, STRND, 22AWG, XLPVC UL1430 (12
		SEE NOTE	9107796-33	WIRE, STRND, 22AWG, XLPVC UL1430 (12
		SEE NOTE	9107796-44	WIRE, STRND, 22AWG, XLPVC UL1430 (12
		SEE NOTE	9107796-77	WIRE, STRND, 22AWG, XLPVC UL1430 (12
		SEE NOTE	9007031-00	TIE, CABLE BUNDL DIA 3/4"=101	3
		SEE NOTE	9007017-00	GROMMET RUBBER	1
		SEE NOTE	9107796-55	WIRE, STRND, 22AWG, XLPVC UL1430 (12

11 NOTE: ITEMS 3,4,5,6,7 AND 10 ARE IN INCHES LONG.

REVISION HISTORY		BASIC PART NO: 7018162		DRN: P. TOUSIGNANT		DATE: 23-JUL-81		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: A. ROCHA		DATE: 23-JUL-81		TITLE PARTS LIST	
	INITIAL	A	SECTION. VARIATION INDEX	DES.ENG.: R. MORIN		DATE: 23-JUL-81		SENSOR POWER CABLE	
			[A] OM	RESP.ENG.: R. MORIN		DATE: 23-JUL-81		DOCUMENT NUMBER	
			[B]	MFG.ENG.: S. CASTIGLIONE		DATE: 23-JUL-81		SIZE CODE NUMBER REV	
			[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			[D]	D-IA-7018162-0-0		E-AD-7018081-0-0		21852A.FLS 13	
			[E]	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"					
			[F]						

LINE 13: 202517 2025

[illegible]

የግንባታው ስራ በጥንቃቄ ይከተላል

4-57-275545-3-0

[illegible][illegible]

• • • • •

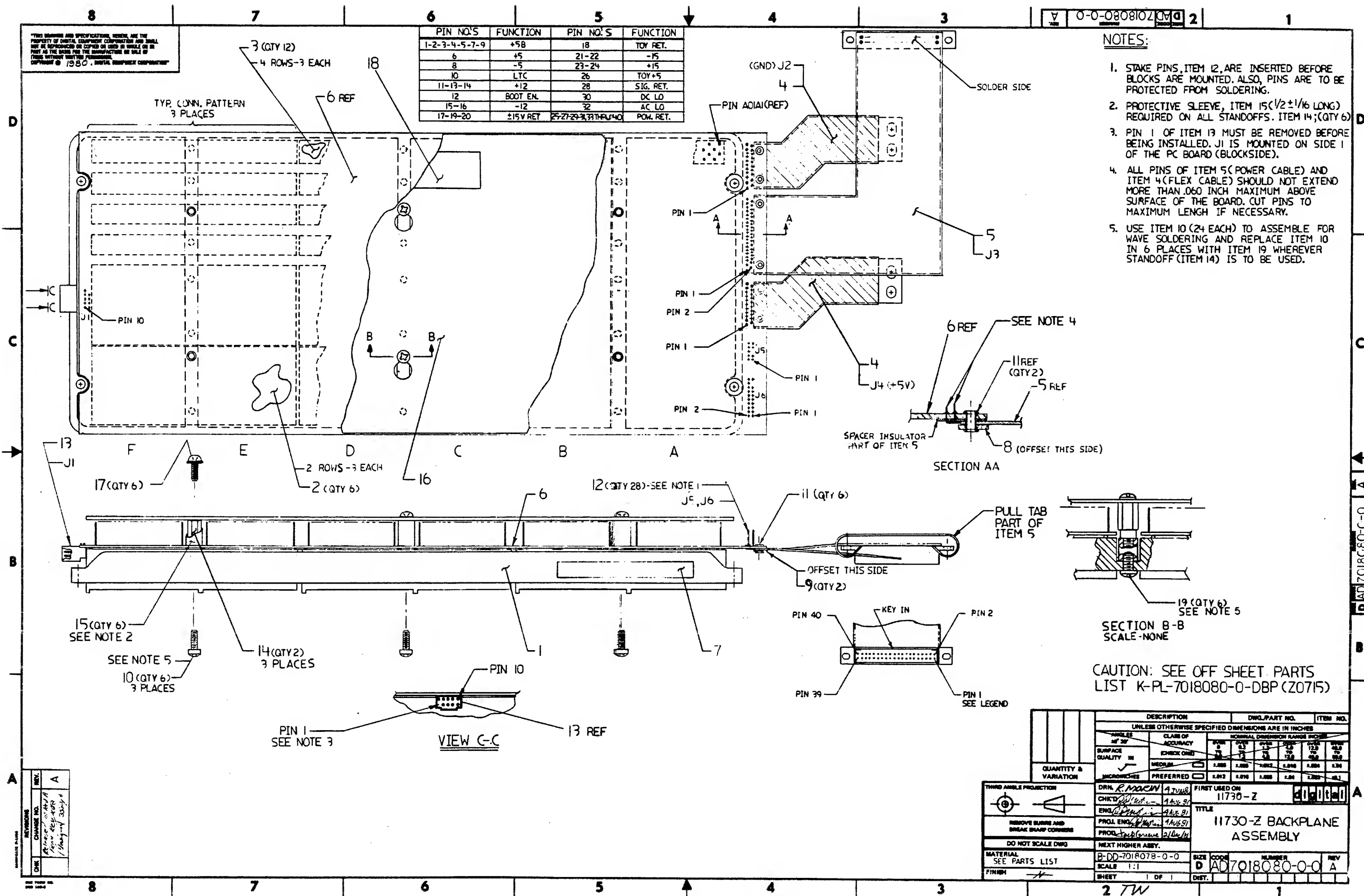
[illegible]

REVISION HISTORY		BASIC PART NO: 5414340		DRN: J. FERQUEEN		DATE: 30-JAN-91		<div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>6</div> <div>7</div> <div>8</div> <div>9</div> <div>10</div> </div>	
ENG	DOC NUMBER	REV	SECTION A OF A	CHK'D:	F. GAROFALO	DATE:	30-JAN-91	TITLE	
---	INITIAL	A	SECTION VARIATION INDEX	DES. ENG:	D. DRINKWATER	DATE:	30-JAN-91	AIR FLN BENCH	
			00	RESP. ENG.:	D. DRINKWATER	DATE:	30-JAN-91	DOCUMENT NUMBER	
				MFG. ENG.:	M. NYCKOFF	DATE:	9-10-91	SIZE CODE NUMBER	
				ASSEMBLY NUMBER:	0-0A-5414340-0-0	TOP DOCUMENT NUMBER:		K FL 5414340-0-000	
						0-00-5414340-0-0		REV	

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

COPYRIGHT (C) 1991. DIGITAL EQUIPMENT CORPORATION

1. STAKE PINS, ITEM 12, ARE INSERTED BEFORE BLOCKS ARE MOUNTED. ALSO, PINS ARE TO BE PROTECTED FROM SOLDERING.
2. PROTECTIVE SLEEVE, ITEM 15 (1/2 ± 1/16 LONG) REQUIRED ON ALL STANDOFFS. ITEM 14; (QTY 6)
3. PIN 1 OF ITEM 13 MUST BE REMOVED BEFORE BEING INSTALLED. J1 IS MOUNTED ON SIDE 1 OF THE PC BOARD (BLOCKSIDE).
4. ALL PINS OF ITEM 5 (POWER CABLE) AND ITEM 4 (FLEX CABLE) SHOULD NOT EXTEND MORE THAN .060 INCH MAXIMUM ABOVE SURFACE OF THE BOARD. CUT PINS TO MAXIMUM LENGTH IF NECESSARY.
5. USE ITEM 10 (24 EACH) TO ASSEMBLE FOR WAVE SOLDERING AND REPLACE ITEM 10 IN 6 PLACES WITH ITEM 19 WHEREVER STANDOFF (ITEM 14) IS TO BE USED.



4

3

REV.
A

NUMBER
7018080-0-1

SIZE
KWL

2

1

This drawing and specifications, herein, are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.

B

B

A

A

FIRST USED ON OPTION MODEL		QTY.	DESCRIPTION	PART NO.	ITEM NO.
11730					
PARTS LIST					
DRN.	<i>P. Proulx</i>	DATE	27 July 81	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
CHK'D.	<i>D.M. Harding</i>	DATE	2 DEC 81		
ENG.	<i>D.M. Harding</i>	DATE	2 DEC 81		
PROJ. ENG.	<i>D.M. Harding</i>	DATE	2 DEC 81		
PROD.	<i>John G. Givens</i>	DATE	2 Dec 81		
NEXT HIGHER ASSEMBLY				TITLE 11730 BACKPLANE (730Z)	
7018078-0-0					
SCALE NONE					
SHEET		1	OF	1	
SIZE		K	WL	NUMBER	
				7018080-0-1	
REV.		A			

4

3

↑

2

TW

1

"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN."

DRAWING DIRECTORY

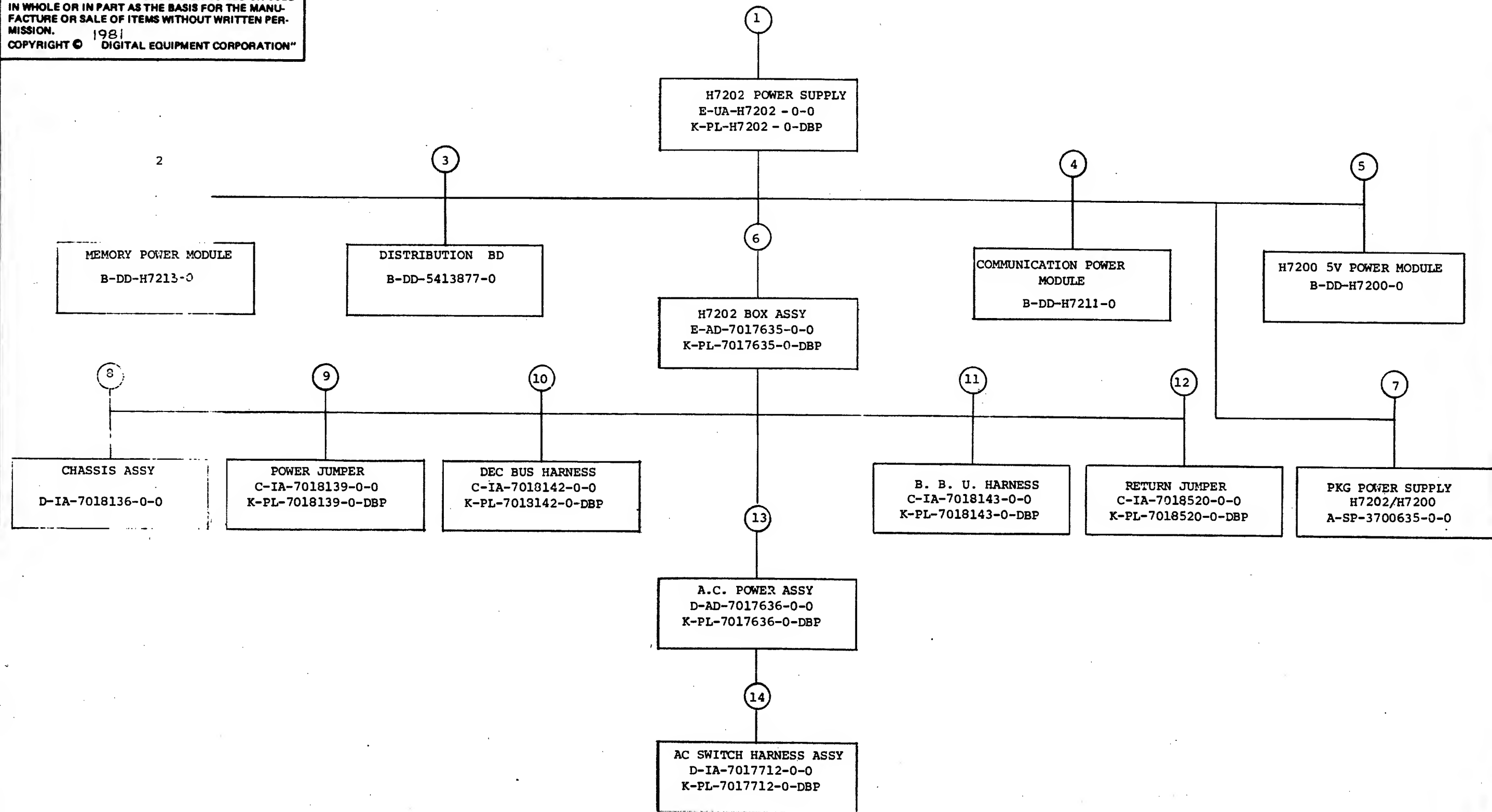
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981 DIGITAL EQUIPMENT CORPORATION.

[illegible]

REVISIONS		USED ON OPTION/MODEL	DRN.	DATE	TITLE															
REV.	CHANGE NO.	VAX11/730	P. Katsaris	2/20/81	H7202 POWER SUPPLY															
			CHK'D.	DATE																
			J.F. Sullivan	2/20/81																
			PROJ. ENG.	DATE																
			CS Snyder	2/20/81	SIZE	CODE	NUMBER				REV									
			PROD.	DATE	B	DD	H7202 - 0				A									
		SHEET 1 OF 3	V. Welch	10/19/81	DIST.															

TW

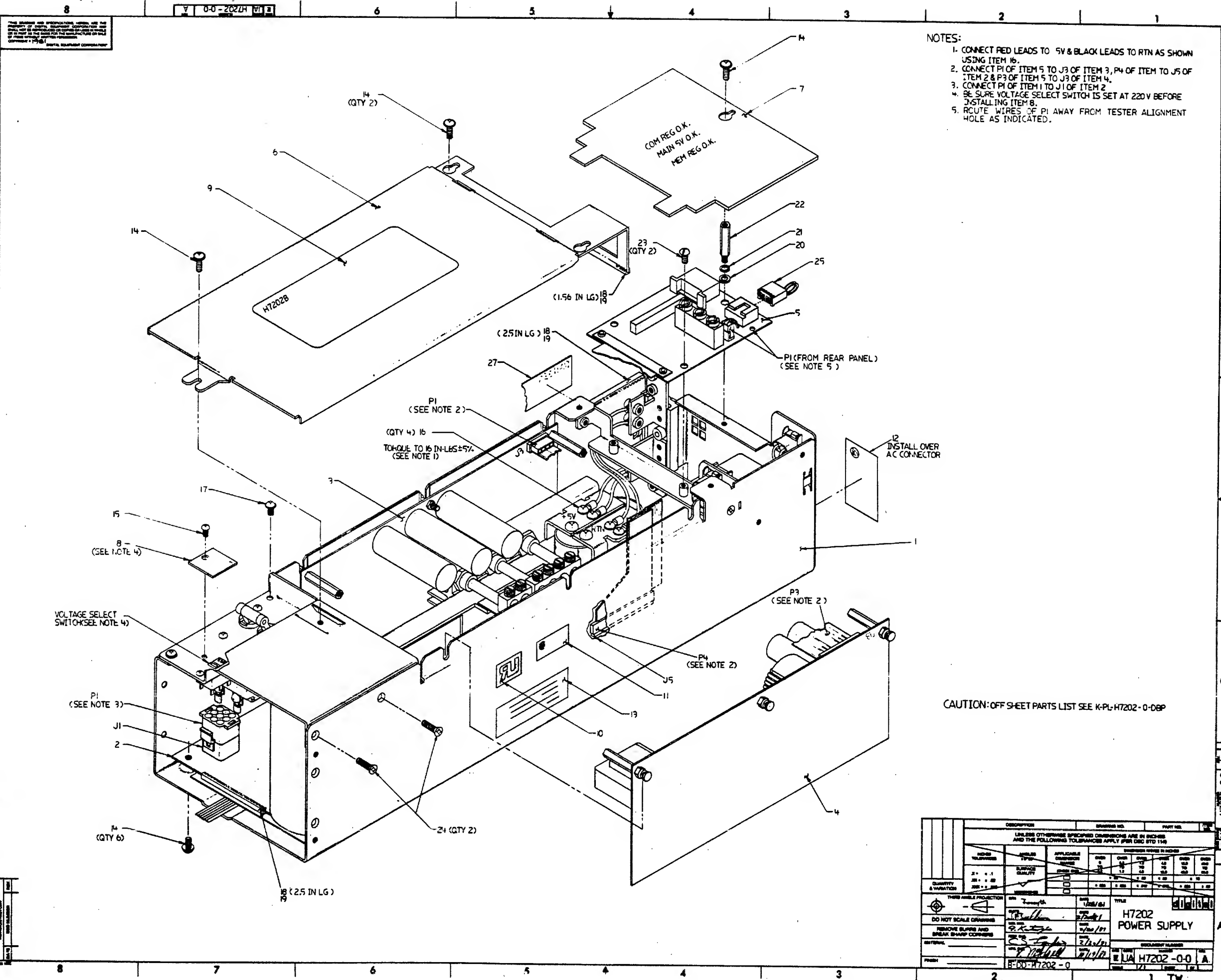
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
 1981
 COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"



TITLE	SHEET 2 OF 3	SIZE CODE	NUMBER	REV
H7202 POWER SUPPLY		B DD	H7202 - 0	A

Tu

FIND NO.	DRAWING NO.	DESCRIPTION	TYPE	FIND NO.	DRAWING NO.	DESCRIPTION	TYPE
1	MP02157	FIELD MAINTENANCE PRINT SET (MP)	-	8	D-IA-7018136-0-0	CHASSIS ASSY	M
	B-TC-H7202-0-1	FIELD MAINTENANCE PRINTSET (TC)	-		F-MD-7424252-0-0	CHASSIS, LEM	M
	E-UA-H7202-0-0	H7202 POWER SUPPLY	E/M		D-MD-7424253-0-0	PLATE, END	M
	K-PL-H7202-0-DBP	H7202 POWER SUPPLY PARTS LIST	E/M				
	D-MD-7424254-0-0	COVER TOP	M				
	D-IA-7424260-0-0	PANEL, ACCESS	M				
	B-MD-7425394-0-0	COVER, SWITCH	M	9	C-IA-7018139-0-0	JUMPER, POWER	E/M
	A-DC-3618426-0-0	LABEL, P.S. H7202	M		K-PL-7018139-0-DBP	JUMPER, POWER PARTS LIST	E/M
	A-DC-3612063-0-0	LABEL ADHESIVE	M				
	A-DC-3613211-0-0	DECAL CSA	M				
	A-DC-3618427-0-0	LABEL, CAUTION	M				
	A-DC-3615087-02	LABEL, "DANGER-HIGH CURRENT"	M				
				10	C-IA-7018142-0-0	DEC RIIS HARNESS	E/M
					K-PL-7018142-0DBP	DEC RIIS HARNESS	E/M
2	B-DD-H7213-0	MEMORY POWER MODULE	E/M				
				11	C-IA-7018143-0-0	HARNESS, BBU	E/M
					K-PL-7018143-0-DBP	HARNESS, BBU PARTS LIST	E/M
3	B-DD-5413877-0	DISTRIBUTION BOARD	E/M				
				12	C-IA-7018520-0-0	JUMPER, RETURN	E/M
					K-PL-7018520-0-DBP	JUMPER, RETURN PARTS LIST	E/M
4	B-DD-H7211-0	COMMUNICATION POWER MODULE	E/M				
5	B-DD-H7200-0	H7200 5V POWER MODULE	E/M	13	D-AD-7017636-0-0	AC POWER ASSY	E/M
					K-PL-7017636-0-DBP	AC POWER ASSY PARTS LIST	E/M
					D-MD-7424258-0-0	BRACKET, C.B. MTG	M
6	E-AD-7017635-0-0	H7202 BOX ASSY	E/M				
	K-PL-7017635-0-DBP	H7202 BOX ASSY PARTS LIST	E/M				
	B-IA-7424257-0-0	BRACKET POWER CONN	M	14	D-IA-7017712-0-0	HARNESS ASSY, AC SWITCH	E/M
	D-MD-7425398-0-0	INSULATOR, POWER CONN	M		K-PL-7017712-0-DBP	HARNESS ASSY, AC SWITCH PARTS LIST	E/M
	D-MD-7424259-0-0	CONNECTOR MTG. BRACKET	M				
	C-MD-7425494-0-0	INSULATOR, P.C. BOARD	M				
	C-MD-7425401-0-0	INSULATOR, SHIELD	M				
7	A-SP-3700635-0-0	PKG POWER SUPPLY H7202/H7200	M				
TYPE: E ELECTRICAL M MECHANICAL E/M ELECTRO/MECHANICAL				TITLE H7202 POWER SUPPLY			SHEET 3 OF 3
				SIZE CODE B DD			NUMBER H7202-0
							REV A



AUTOMATED BY PRTLST.3P(44)

P A R T S L I S T

SHEET A1 OF A2

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QUANTITY PER VARIATION
B

1	E-AD-7017635-0-0	7017635-00	H7202 BOX ASSY.	1
1	D-UA-H7200-0-0	H7200-00	5V POWER MODULE: 5V 60A,300V 200	1
1	B-UA-H7211-0-0	H7211-00	COMM OPT PS: +15V 2A,-15V 3A,+12	1
1	3-UA-H7213-0-0	H7213-00	MEMORY PWR MODULE: +5V 15A,+12V	1
1	D-UA-5413877-0-0	5413877-00	H7202 DIST BOARD	1
1	D-MD-7424254-0-0	7424254-00	TOP COVER	1
1	D-IA-7424260-0-0	7424260-00	ACCESS PANEL	1
1	B-MD-7425394-0-0	7425394-00	COVER,SWITCH	1
1		3618426-01	LABEL,P.S. H7202	1
1		3612063-00	LABEL, ADHESIVE I.D. FOR UL C	1
1		3613211-00	DECAL,CLEAR PREPRINTED CSA 1-1/4	1
1		3618427-01	LABEL,CAUTION VOLTAGE SETTING	1
1		9009255-00	LABEL, POWER SUPPLY, 2-15/16 " L	1
1		9009984-00	SCREW, SEMS, PHILLIPS PAN HD, 6-	10
1		9010128-00	SCREW,TAPPING,TYPE PAN,PHIL,	1
1		9010174-01	SCREW,PAN,PHIL,SEMS 8-32X .31 L	4
1		9010148-01	SCREW TRUSS PHIL 6-32X 5/16	1
1		9007035-00	GROMMET #122-37-1500	7
1		9009157-00	ADH,LIQ, RM TEMP CURING COLORLESS	A/R
1		9006656-00	WASHER, FLAT, .312 O.D. X .156 I	1
1		5009882-00	WASHER, LOCK, INT TOOTH #6	1
1		9000001-05	STANDOFF, HEX,M/F 6-32X	1
1		9008212-00	SCREW, NYLON, SLTD PAN HD, 6-32	1
1		9009730-00	SCREW, PHILLIPS FLAT AD, 6-32 X	2
1	C-IA-7018535-0-0	7018535-00	JUMPER TOY POWER	1
1		3700635-02	PKG. POWER SUPPLY H7202/H7200	1
1		3615087-02	LABEL,"DANGER-HIGH CURRENT"	1

REVISION HISTORY		BASIC PART NO: H7202		DRN: T.MCCULLOUGH		DATE: 19-FEB-81		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: J.SULLIVAN		DATE: 19-FEB-81		TITLE PARTS LIST	
	INITIAL	A	SECTION. VARIATION INDEX					H7202 POWER SUPPLY	
			(A) B						
			(B)	DES.ENG.: A.KANTARGIS		DATE: 19-FEB-81			
			(C)	RESP.ENG.: C.LANDINO		DATE: 19-FEB-81		DOCUMENT NUMBER	
			(D)					SIZE:CODE NUMBER REV	
			(E)	MFG.ENG.: V.MITCHELL		DATE: 19-FEB-81		K PL H7202-0-DBP A	
			(F)	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
				E-UA-H7202-0-0		B-DD-H7202-0-0		22281A.PLS 10	
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"									

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
------	------	-----------------	-------------	-------------	------------------------

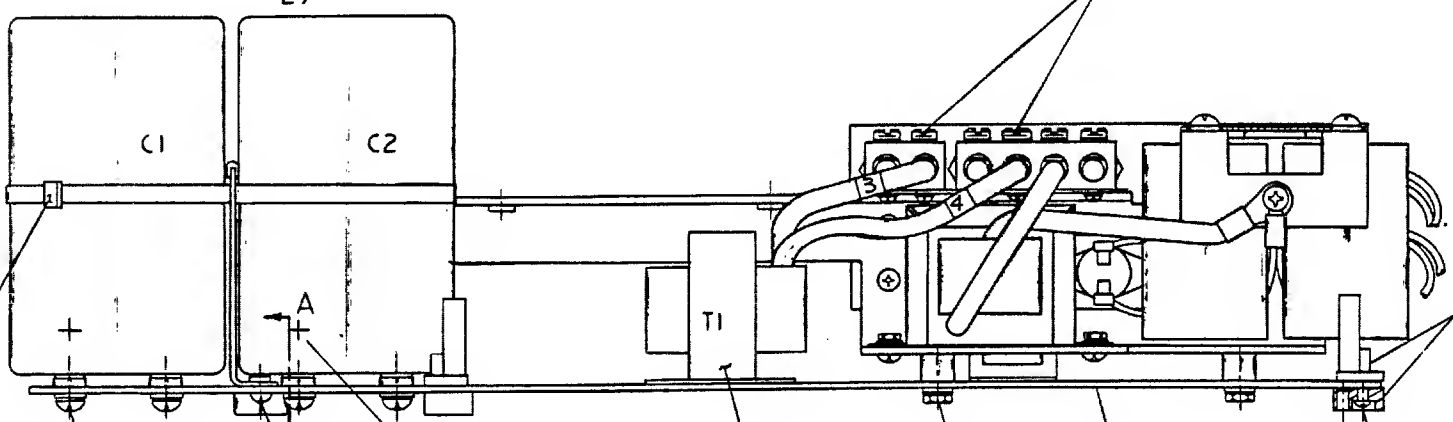
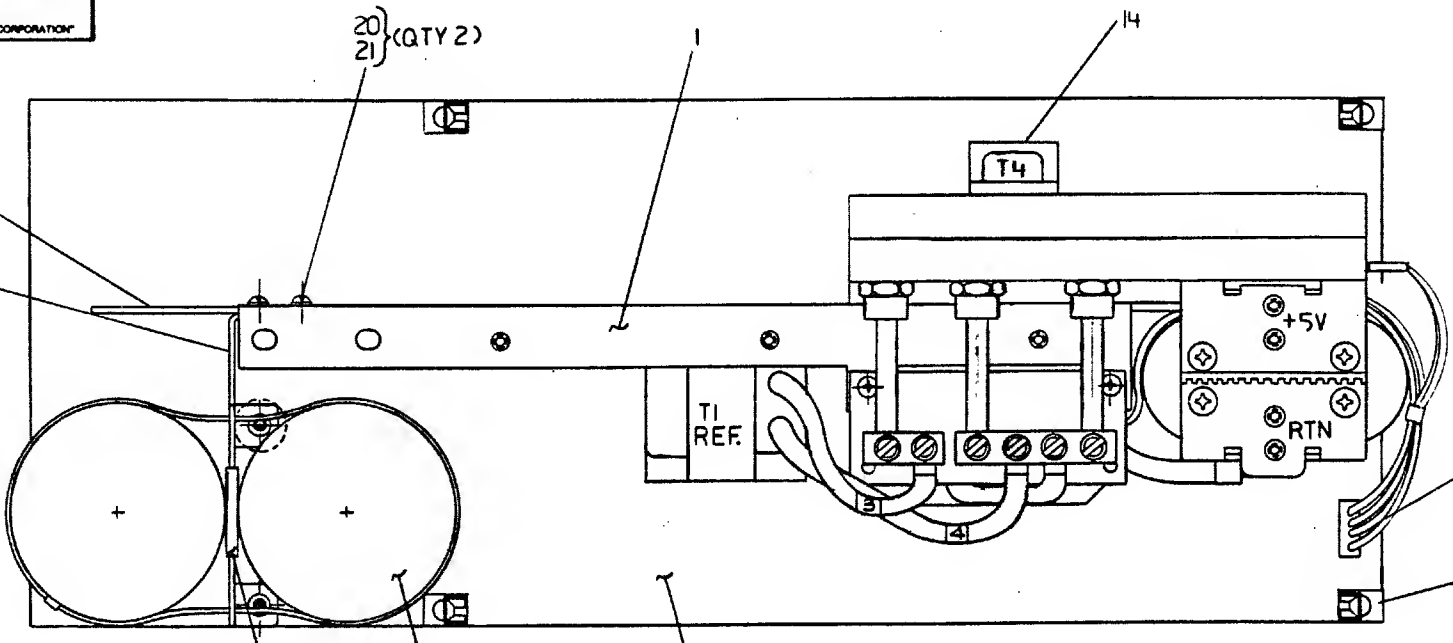
B

28 NOTE: ITEM 18 IS IN INCHES.
29 NOTE: ITEM 26 IS BULK PKG FOR (48) UNIT. FOR INDIVIDUAL PKG USE 3700635-01 QTY 1.

D	I	G	I	T	A	L	TITLE	H7202 POWER SUPPLY	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	H7202-0-DBP	A

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1978 DIGITAL EQUIPMENT CORPORATION

D
C
B
A



INSTALL CONNECTOR FROM ITEM 1

5(REF)

SECTION A-A

CAUTION: OFF SHEET PARTS LIST
SEE K-PL-H7200-0-DBP (Z22978.PLS)

DESCRIPTION		DRAWING NO.		PART NO.		ITEM NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)							
INCHES TOLERANCES		ANGLES ± 0° 30'		APPLICABLE DIMENSION RANGE		DIMENSION RANGE IN INCHES	
X ± .1		SURFACE QUALITY		CHECK DIMS		OVER 0.2 TO 1.2 OVER 1.2 TO 4.0 OVER 4.0 TO 12.0 OVER 12.0 TO 40.0 OVER 40.0 TO 60.0	
XX ± .02		MICROMETERS		□		± .02 ± .03 ± .04 ± .05 ± .06 ± .07 ± .08 ± .09 ± .10 ± .12 ± .15 ± .20 ± .25 ± .30 ± .35 ± .40 ± .45 ± .50 ± .55 ± .60 ± .65 ± .70 ± .75 ± .80 ± .85 ± .90 ± .95 ± 1.0 ± 1.2 ± 1.5 ± 1.8 ± 2.0 ± 2.5 ± 3.0 ± 3.5 ± 4.0 ± 4.5 ± 5.0 ± 5.5 ± 6.0 ± 6.5 ± 7.0 ± 7.5 ± 8.0 ± 8.5 ± 9.0 ± 9.5 ± 10.0 ± 11.0 ± 12.0 ± 13.0 ± 14.0 ± 15.0 ± 16.0 ± 17.0 ± 18.0 ± 19.0 ± 20.0 ± 22.0 ± 24.0 ± 26.0 ± 28.0 ± 30.0 ± 32.0 ± 34.0 ± 36.0 ± 38.0 ± 40.0 ± 42.0 ± 44.0 ± 46.0 ± 48.0 ± 50.0 ± 52.0 ± 54.0 ± 56.0 ± 58.0 ± 60.0 ± 62.0 ± 64.0 ± 66.0 ± 68.0 ± 70.0 ± 72.0 ± 74.0 ± 76.0 ± 78.0 ± 80.0 ± 82.0 ± 84.0 ± 86.0 ± 88.0 ± 90.0 ± 92.0 ± 94.0 ± 96.0 ± 98.0 ± 100.0	
XXX ± .005		THIRD ANGLE PROJECTION		DATE 12/10/80		TITLE H7200 5V POWER MODULE	
DO NOT SCALE DRAWING		DATE 2/17/81		DATE 2/19/81		DATE 2/19/81	
REMOVE BURRS AND BREAK SHARP CORNERS		DATE 2/19/81		DATE 2/19/81		DATE 2/19/81	
MATERIAL		DATE 2/19/81		DATE 2/19/81		DATE 2/19/81	
FINISH		DATE 2/19/81		DATE 2/19/81		DATE 2/19/81	
E-0A-H7202-0-0		E-0A-H7202-0-0		E-0A-H7202-0-0		E-0A-H7202-0-0	
SCALE FULL		SCALE FULL		SCALE FULL		SCALE FULL	
SHEET 1 OF 1		SHEET 1 OF 1		SHEET 1 OF 1		SHEET 1 OF 1	

REV	DATE	BY	CHKD	APPD
1	12/10/80	J.F. Sullivan		
2	2/17/81	J.F. Sullivan		
3	2/19/81	J.F. Sullivan		
4	2/19/81	J.F. Sullivan		
5	2/19/81	J.F. Sullivan		
6	2/19/81	J.F. Sullivan		
7	2/19/81	J.F. Sullivan		
8	2/19/81	J.F. Sullivan		
9	2/19/81	J.F. Sullivan		
10	2/19/81	J.F. Sullivan		
11	2/19/81	J.F. Sullivan		
12	2/19/81	J.F. Sullivan		
13	2/19/81	J.F. Sullivan		
14	2/19/81	J.F. Sullivan		
15	2/19/81	J.F. Sullivan		
16	2/19/81	J.F. Sullivan		
17	2/19/81	J.F. Sullivan		
18	2/19/81	J.F. Sullivan		
19	2/19/81	J.F. Sullivan		
20	2/19/81	J.F. Sullivan		
21	2/19/81	J.F. Sullivan		
22	2/19/81	J.F. Sullivan		
23	2/19/81	J.F. Sullivan		
24	2/19/81	J.F. Sullivan		
25	2/19/81	J.F. Sullivan		
26	2/19/81	J.F. Sullivan		
27	2/19/81	J.F. Sullivan		
28	2/19/81	J.F. Sullivan		
29	2/19/81	J.F. Sullivan		
30	2/19/81	J.F. Sullivan		
31	2/19/81	J.F. Sullivan		
32	2/19/81	J.F. Sullivan		
33	2/19/81	J.F. Sullivan		
34	2/19/81	J.F. Sullivan		
35	2/19/81	J.F. Sullivan		
36	2/19/81	J.F. Sullivan		
37	2/19/81	J.F. Sullivan		
38	2/19/81	J.F. Sullivan		
39	2/19/81	J.F. Sullivan		
40	2/19/81	J.F. Sullivan		
41	2/19/81	J.F. Sullivan		
42	2/19/81	J.F. Sullivan		
43	2/19/81	J.F. Sullivan		
44	2/19/81	J.F. Sullivan		
45	2/19/81	J.F. Sullivan		
46	2/19/81	J.F. Sullivan		
47	2/19/81	J.F. Sullivan		
48	2/19/81	J.F. Sullivan		
49	2/19/81	J.F. Sullivan		
50	2/19/81	J.F. Sullivan		
51	2/19/81	J.F. Sullivan		
52	2/19/81	J.F. Sullivan		
53	2/19/81	J.F. Sullivan		
54	2/19/81	J.F. Sullivan		
55	2/19/81	J.F. Sullivan		
56	2/19/81	J.F. Sullivan		
57	2/19/81	J.F. Sullivan		
58	2/19/81	J.F. Sullivan		
59	2/19/81	J.F. Sullivan		
60	2/19/81	J.F. Sullivan		
61	2/19/81	J.F. Sullivan		
62	2/19/81	J.F. Sullivan		
63	2/19/81	J.F. Sullivan		
64	2/19/81	J.F. Sullivan		
65	2/19/81	J.F. Sullivan		
66	2/19/81	J.F. Sullivan		
67	2/19/81	J.F. Sullivan		
68	2/19/81	J.F. Sullivan		
69	2/19/81	J.F. Sullivan		
70	2/19/81	J.F. Sullivan		
71	2/19/81	J.F. Sullivan		
72	2/19/81	J.F. Sullivan		
73	2/19/81	J.F. Sullivan		
74	2/19/81	J.F. Sullivan		
75	2/19/81	J.F. Sullivan		
76	2/19/81	J.F. Sullivan		
77	2/19/81	J.F. Sullivan		
78	2/19/81	J.F. Sullivan		
79	2/19/81	J.F. Sullivan		
80	2/19/81	J.F. Sullivan		
81	2/19/81	J.F. Sullivan		
82	2/19/81	J.F. Sullivan		
83	2/19/81	J.F. Sullivan		
84	2/19/81	J.F. Sullivan		
85	2/19/81	J.F. Sullivan		
86	2/19/81	J.F. Sullivan		
87	2/19/81	J.F. Sullivan		
88	2/19/81	J.F. Sullivan		
89	2/19/81	J.F. Sullivan		
90	2/19/81	J.F. Sullivan		
91	2/19/81	J.F. Sullivan		
92	2/19/81	J.F. Sullivan		
93	2/19/81	J.F. Sullivan		
94	2/19/81	J.F. Sullivan		
95	2/19/81	J.F. Sullivan		
96	2/19/81	J.F. Sullivan		
97	2/19/81	J.F. Sullivan		
98	2/19/81	J.F. Sullivan		
99	2/19/81	J.F. Sullivan		
100	2/19/81	J.F. Sullivan		

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A2 OF A2

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QUANTITY PER VARIATION
00

26 NOTE: ITEM 4 IS IN INCHES.

D	I	G	I	T	A	L	TITLE	H7200 5V POWER MODULE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	H7200-0-08P	B

COPYRIGHT © 1981 DIGITAL EQUIPMENT CORPORATION



<table border="1"> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table>																		DESCRIPTION		DWG./PART NO.		ITEM NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES																							
ANGLES ±0° 30'		GLASS OF		NOMINAL DIMENSION RANGE INCHES																			
SURFACE QUALITY IN		ACCURACY (CHECK ONE)		OVER 1/16 TO 0.2	OVER 1/8 TO 1.2	OVER 1/4 TO 4.0	OVER 1/2 TO 12.0	OVER 1.0 TO 40.0	OVER 40.0 TO 80.0														
		MEDIUM <input type="checkbox"/>		±.004	±.008	±.012	±.016	±.024	±.04														
QUANTITY & VARIATION		MICROINCHES		PREFERRED <input type="checkbox"/>	±.012	±.016	±.025	±.04	±.063	±0.1													

<p>THIRD ANGLE PROJECTION</p>	DRN. <i>Joynt</i>	2/11/81	<p>FIRST USED ON</p> <p>H7202B</p> <p>TITLE</p> <p>COMMUNICATION POWER MODULE</p>
	CHK'D <i>J.F. Allen</i>	2/19/81	
	ENG. <i>G. Kistner</i>	2/19/81	
	PROJ. ENG. <i>Chab. J. 2/19/81</i>		
REMOVE BURRS AND BREAK SHARP CORNERS	PROD. <i>Vicki Zepher</i>	2-19-81	
DO NOT SCALE DWG	NEXT HIGHER ASSY.		
	E-UA-H7202-0-0		

MATERIAL	1/	SIZE	CODE	NUMBER	REV.
FINISH	1/	B	UA	H7211-0-0	A
SCALE	1:2	DIST.			
SHEET	OF				

REVISIONS	
CHK	CHANGE NO. REV.

DRB 100A

TW 1

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
1	1	D-UA-5413867-0-0	5413867-00	H7211 COMMUNICATION REG	1
2	2	B-MD-7425185-0-0	7425185-00	SPACER, PCB	3
3	3		9006809-00	SPACER, HEX, ALUM, .138 ID X 1.0	2
4	4		9007801-00	WASHER, LOCK, S.S. #6	2
5	5		9009243-00	NUT, KEP 6-32 X5/16AF	1
6	6	A-SP-3700635-0-0	3700635-05	PKG. POWER SUPPLY H7202/H7200	A/R

7 NOTE: ITEM 6 IS A CUSTOMER/FIELD SERVICE PKG AND THE QTY IS DETERMINED BY MFG.

(2)

(210 4

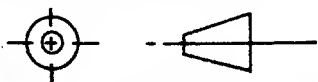
REVISION HISTORY		BASIC PART NO: H7211		DRN: T.MCCULLOUGH		DATE: 19-FEB-81		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: J.SULLIVAN		DATE: 19-FEB-81		TITLE PARTS LIST	
---	INITIAL	A	SECTION A VARIATION INDEX	[A] 00				COMM. POWER MODULE	
			[B]	DES.ENG.: A.KANTARGIS		DATE: 19-FEB-81			
			[C]	RESP.ENG.: R.MARTEL		DATE: 19-FEB-81		DOCUMENT NUMBER	
			[D]	MFG.ENG.: V.MITCHELL		DATE: 19-FEB-81		SIZE CODE NUMBER REV	
			[E]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		H7211-0-DBP A	
			[F]	B-UA-H7211-0-0		B-DD-H7202-0-0		FILE NAME: 22283.PLS EDIT # 3	
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"									

COPYRIGHT © 1981 DIGITAL EQUIPMENT CORPORATION



				DESCRIPTION				DWG./PART NO.				ITEM NO.			
				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES											
ANGLES $\pm 0^\circ 30'$ SURFACE QUALITY IN <div style="text-align: center;">✓</div>				CLASS OF ACCURACY (CHECK ONE) MEDIUM <input type="checkbox"/>		NOMINAL DIMENSION RANGE INCHES <div style="display: flex; justify-content: space-between;"> <div>OVER 0 TO 0.2</div> <div>OVER 0.2 TO 1.0</div> <div>OVER 1.0 TO 4.0</div> <div>OVER 4.0 TO 12.0</div> <div>OVER 12.0 TO 40.0</div> <div>OVER 40.0 TO 80.0</div> </div>									
						<div style="display: flex; justify-content: space-between;"> <div>MICROINCHES</div> <div>PREFERRED <input type="checkbox"/></div> <div>±.004</div> <div>±.008</div> <div>±.012</div> <div>±.016</div> <div>±.024</div> <div>±.04</div> </div>									
QUANTITY & VARIATION						<div style="display: flex; justify-content: space-between;"> <div>±.012</div> <div>±.016</div> <div>±.025</div> <div>±.04</div> <div>±.063</div> <div>±.01</div> </div>									

THIRD ANGLE PROJECTION



REMOVE BURRS AND
BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL 11

FINISH 11

DRN. Forayth 2/11/81

CHK'D J. Sullivan 2/15/81

ENG. G. Katonji 2/19/81

PROJ. ENG. W. H. 12/19/81

PROD. P. J. 2-19-81

NEXT HIGHER ASSY.

E-UA-H7202-0-0

FIRST USED ON

H7202B

TITLE

MEMORY POWER
MODULE

SIZE CODE NUMBER REV.

B UA H7213-0-0 A

SHEET OF

DIST.

REVISIONS	
CHK	CHANGE NO. REV.

DRB 100A

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A1 OF A1

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QUANTITY PER VARIATION
00

1
2
3
4
5
6

1
2
3
4
5
6

D-UA-5413869-0-0
B-MD-7425185-0-0

A-SP-3700635-0-0

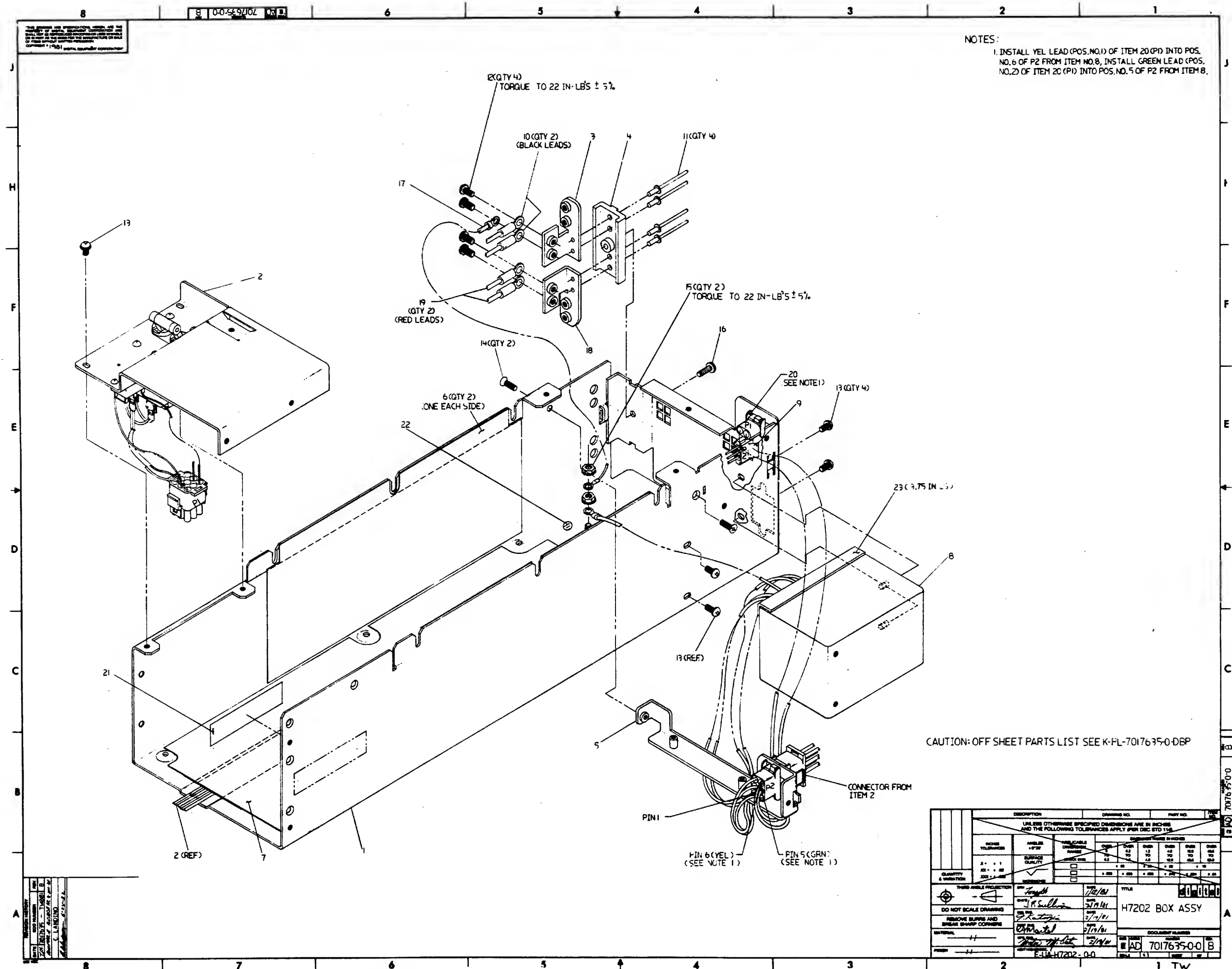
5413869-00
7425185-00
9006809-00
9007801-00
9009243-00
3700635-05

H7213 MEMORY REG
SPACER, PCB
SPACER, HEX, ALUM, .138 ID X 1.0
WASHER, LOCK, S.S. #6
NUT, KEP 6-32 X5/16AF
PKG. POWER SUPPLY H7202/H7200

1
2
3
4
5
A/R

7 NOTE: ITEM 6 IS A CUTOMER/FIELD SERVICE PKG AND THE QTY IS DETERMINED BY MFG.

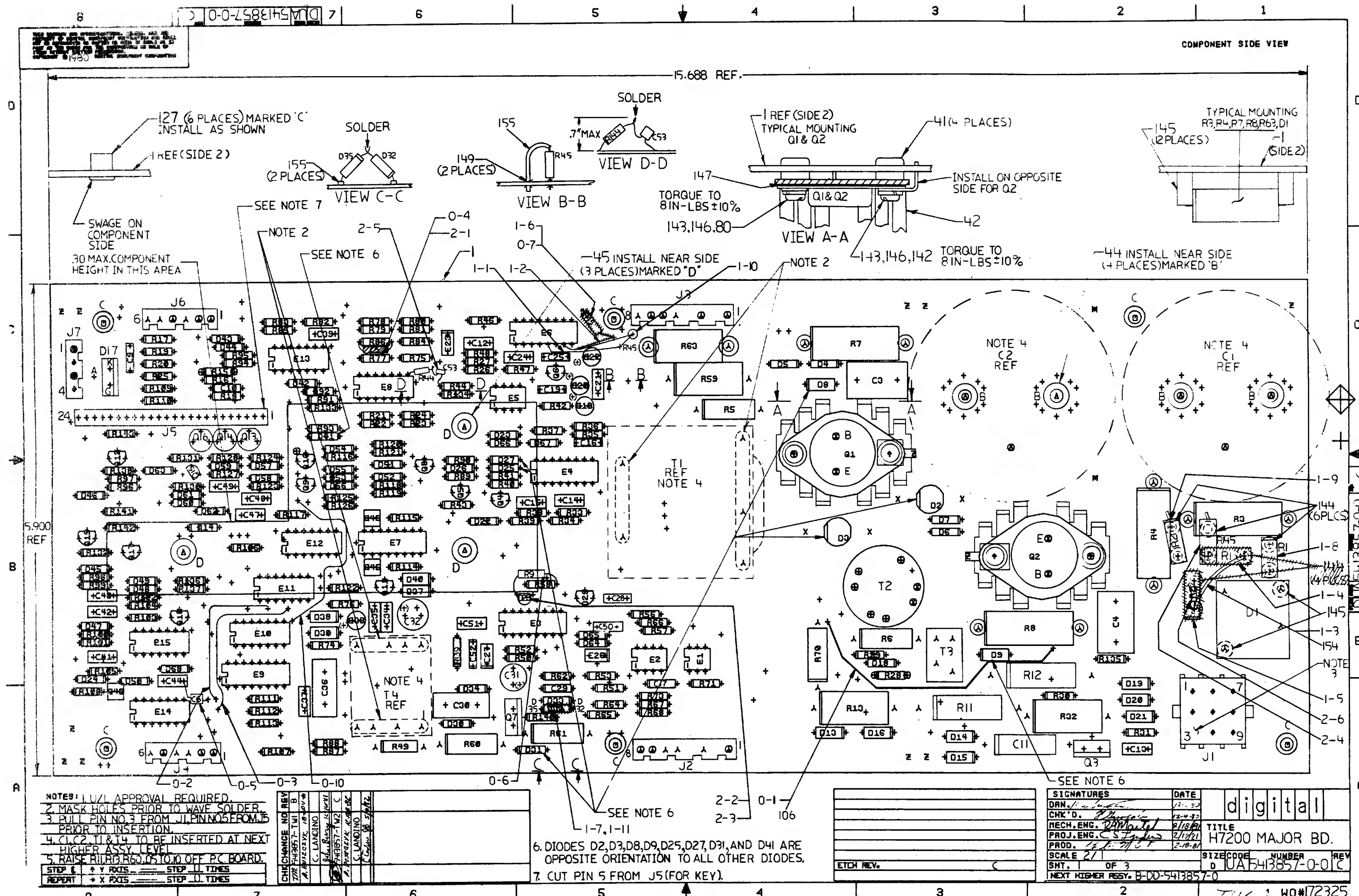
REVISION HISTORY			BASIC PART NO: H7213		DRN: T.MCCULLOUGH		DATE: 19-FEB-81		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A		CHK'D: J.SULLIVAN		DATE: 19-FEB-81		TITLE PARTS LIST	
---	INITIAL	A	SECTION. VARIATION INDEX		DES.ENG.: A.KANTARGIS		DATE: 19-FEB-81		MEMORY POWER MODULE	
			[A] 00		RESP.ENG.: R.MARTEL		DATE: 19-FEB-81		DOCUMENT NUMBER	
			[B]		MFG.ENG.: V.MITCHELL		DATE: 19-FEB-81		SIZE: CODE: NUMBER REV	
			[C]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			[D]		B-UA-H7213-0-0		B-UA-H7213-0-0		Z22B2.PLS 3	
			[E]							
			[F]							
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"										



LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
				00
1	1	D-IA-7018136-0-0	7018136-00	ASSY CHASSIS
2	2	D-AD-7017636-0-0	7017636-00	AC POWER ASSY
3	3	D-IA-7424257-0-0	7424257-00	BRACKET,POWER CONN
4	4	D-MD-7425398-0-0	7425398-00	INSULATOR,POWER CONNECTOR
5	5	D-MD-7424259-0-0	7424259-00	CONN MTG BRKT.
6	6	C-MD-7425494-0-0	7425494-00	INSULATOR,P.C.BOARD
7	7	C-MD-7425401-0-0	7425401-00	INSULATOR,SHIELD
8	8	A-PS-1217838-0-0	1217838-00	FILTER,LINE 115/250V,47-63HZ,6A
9	9	C-IA-7018142-0-0	7018142-00	DEC BUS HARNESS
10	10	C-IA-7018139-0-0	7018139-00	JUMPER, PWR
11	11		9006508-00	RIVET, BLIND, .125 DIA X .419 LG
12	12		9010174-01	SCREW,PAN,PHIL,SEMS 8-32X .31 L
13	13		9010148-01	SCREW TRUSS PHIL 6-32X 5/16
14	14		9009730-00	SCREW, PHILLIPS FLAT AD, 6-32 X
15	15		9006565-00	NUT,KEP , 10-32X 3/8 AF
16	16		9009800-00	SCREW,PAN,PHIL,TAP'G 8-16X .5
17	17	C-IA-7018520-0-0	7018520-00	RETURN JUMPER
18	18	D-IA-7424257-0-0	7424257-01	BRKT-PWR-CONNECTOR
19	19	C-IA-7018139-0-0	7018139-01	POWER JUMPER
20	20	C-IA-7018143-0-0	7018143-00	BBU HARNESS
21	21		9009255-00	LABEL, POWER SUPPLY, 2-15/16 " L

REVISION HISTORY			BASIC PART NO: 7017635			DRN: T.MCCULLOUGH		DATE: 19-FEB-81		DIGITAL									
ENG	ECO NUMBER	REV	SECTION A OF A			CHK'D: J.SULLIVAN		DATE: 19-FEB-81		TITLE PARTS LIST									
---	INITIAL	A	SECTION, VARIATION INDEX			[A] 00				H7202 BOX ASSY									
			[B]			DES.ENG.: A.KANTARGIS		DATE: 19-FEB-81											
			[C]			RESP.ENG.: R.MARTEL		DATE: 19-FEB-81		DOCUMENT NUMBER									
			[D]							SIZE CODE NUMBER REV									
			[E]			MFG.ENG.: V.MITCHELL		DATE: 19-FEB-81		K	PL	7017635-0-DBP						A	
			[F]			ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #									
						E-AD-7017635-0-0		B-DD-H7202-0-0		22285.PLS 2									
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981, DIGITAL EQUIPMENT CORPORATION "																			

TW



NOTES: 1. U/I APPROVAL REQUIRED.
2. MASK HOLES PRIOR TO WAVE SOLDER.
3. PULL PIN NO. 3 FROM J1 PIN NOS FROM J5 PRIOR TO INSERTION.
4. C1, C2, T1 & T4 TO BE INSERTED AT NEXT HIGHER ASSY. LEVEL.
5. RAISE R1, R3, R6, D5 TO 10 OFF PC BOARD.
STEP 6: Y POS STEP 11: TIMES
REPEAT: X POS STEP 11: TIMES

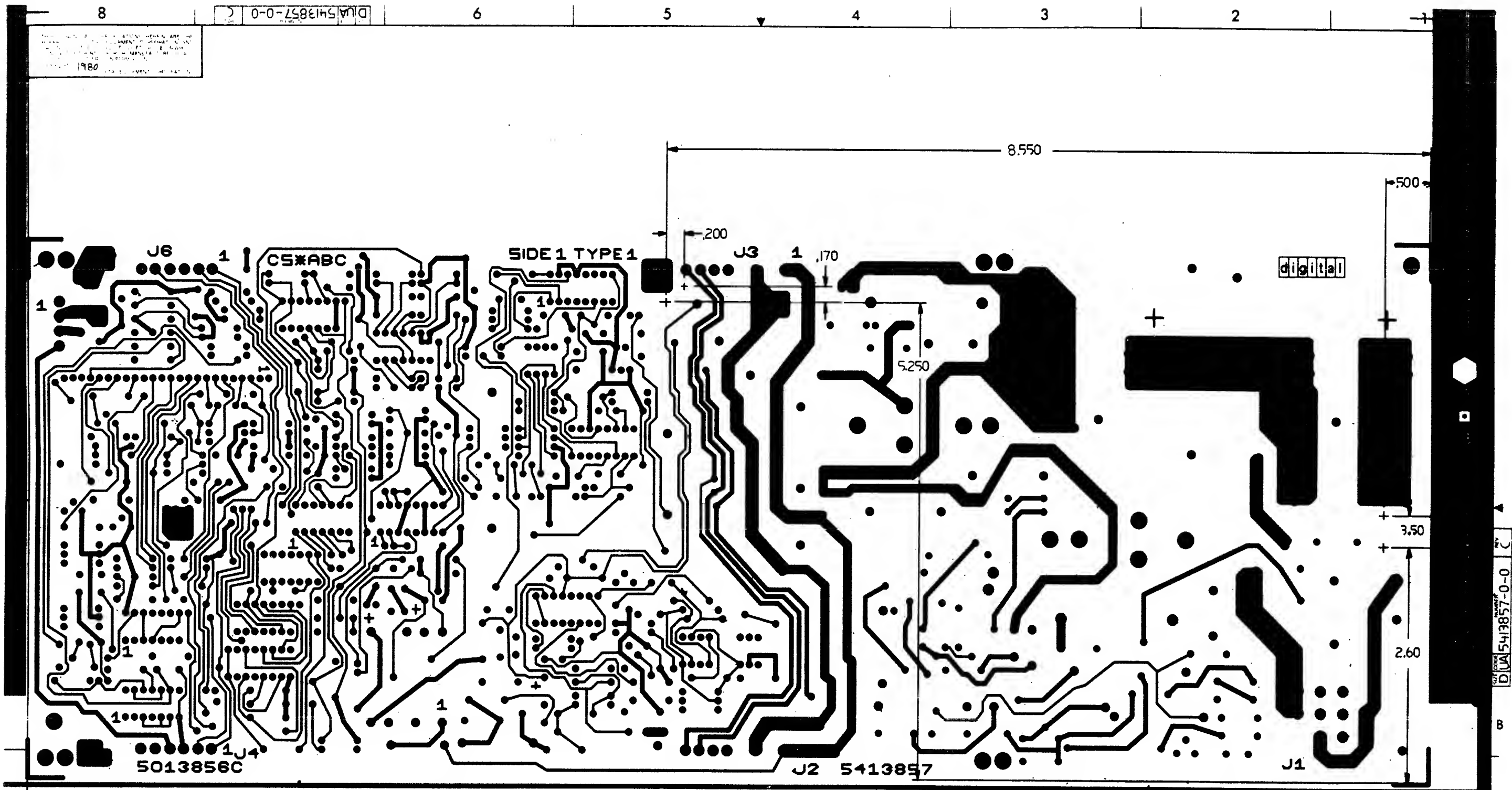
CHG	NO	REV	BY	DATE	DESCRIPTION
1	1	1	W	12-80	INITIAL RELEASE
2	1	2	W	12-80	REVISED FOR
3	1	3	W	12-80	REVISED FOR
4	1	4	W	12-80	REVISED FOR
5	1	5	W	12-80	REVISED FOR
6	1	6	W	12-80	REVISED FOR
7	1	7	W	12-80	REVISED FOR
8	1	8	W	12-80	REVISED FOR
9	1	9	W	12-80	REVISED FOR
10	1	10	W	12-80	REVISED FOR
11	1	11	W	12-80	REVISED FOR
12	1	12	W	12-80	REVISED FOR
13	1	13	W	12-80	REVISED FOR
14	1	14	W	12-80	REVISED FOR
15	1	15	W	12-80	REVISED FOR
16	1	16	W	12-80	REVISED FOR
17	1	17	W	12-80	REVISED FOR
18	1	18	W	12-80	REVISED FOR
19	1	19	W	12-80	REVISED FOR
20	1	20	W	12-80	REVISED FOR
21	1	21	W	12-80	REVISED FOR
22	1	22	W	12-80	REVISED FOR
23	1	23	W	12-80	REVISED FOR
24	1	24	W	12-80	REVISED FOR
25	1	25	W	12-80	REVISED FOR
26	1	26	W	12-80	REVISED FOR
27	1	27	W	12-80	REVISED FOR
28	1	28	W	12-80	REVISED FOR
29	1	29	W	12-80	REVISED FOR
30	1	30	W	12-80	REVISED FOR
31	1	31	W	12-80	REVISED FOR
32	1	32	W	12-80	REVISED FOR
33	1	33	W	12-80	REVISED FOR
34	1	34	W	12-80	REVISED FOR
35	1	35	W	12-80	REVISED FOR
36	1	36	W	12-80	REVISED FOR
37	1	37	W	12-80	REVISED FOR
38	1	38	W	12-80	REVISED FOR
39	1	39	W	12-80	REVISED FOR
40	1	40	W	12-80	REVISED FOR
41	1	41	W	12-80	REVISED FOR
42	1	42	W	12-80	REVISED FOR
43	1	43	W	12-80	REVISED FOR
44	1	44	W	12-80	REVISED FOR
45	1	45	W	12-80	REVISED FOR
46	1	46	W	12-80	REVISED FOR
47	1	47	W	12-80	REVISED FOR
48	1	48	W	12-80	REVISED FOR
49	1	49	W	12-80	REVISED FOR
50	1	50	W	12-80	REVISED FOR
51	1	51	W	12-80	REVISED FOR
52	1	52	W	12-80	REVISED FOR
53	1	53	W	12-80	REVISED FOR
54	1	54	W	12-80	REVISED FOR
55	1	55	W	12-80	REVISED FOR
56	1	56	W	12-80	REVISED FOR
57	1	57	W	12-80	REVISED FOR
58	1	58	W	12-80	REVISED FOR
59	1	59	W	12-80	REVISED FOR
60	1	60	W	12-80	REVISED FOR
61	1	61	W	12-80	REVISED FOR
62	1	62	W	12-80	REVISED FOR
63	1	63	W	12-80	REVISED FOR
64	1	64	W	12-80	REVISED FOR
65	1	65	W	12-80	REVISED FOR
66	1	66	W	12-80	REVISED FOR
67	1	67	W	12-80	REVISED FOR
68	1	68	W	12-80	REVISED FOR
69	1	69	W	12-80	REVISED FOR
70	1	70	W	12-80	REVISED FOR
71	1	71	W	12-80	REVISED FOR
72	1	72	W	12-80	REVISED FOR
73	1	73	W	12-80	REVISED FOR
74	1	74	W	12-80	REVISED FOR
75	1	75	W	12-80	REVISED FOR
76	1	76	W	12-80	REVISED FOR
77	1	77	W	12-80	REVISED FOR
78	1	78	W	12-80	REVISED FOR
79	1	79	W	12-80	REVISED FOR
80	1	80	W	12-80	REVISED FOR
81	1	81	W	12-80	REVISED FOR
82	1	82	W	12-80	REVISED FOR
83	1	83	W	12-80	REVISED FOR
84	1	84	W	12-80	REVISED FOR
85	1	85	W	12-80	REVISED FOR
86	1	86	W	12-80	REVISED FOR
87	1	87	W	12-80	REVISED FOR
88	1	88	W	12-80	REVISED FOR
89	1	89	W	12-80	REVISED FOR
90	1	90	W	12-80	REVISED FOR
91	1	91	W	12-80	REVISED FOR
92	1	92	W	12-80	REVISED FOR
93	1	93	W	12-80	REVISED FOR
94	1	94	W	12-80	REVISED FOR
95	1	95	W	12-80	REVISED FOR
96	1	96	W	12-80	REVISED FOR
97	1	97	W	12-80	REVISED FOR
98	1	98	W	12-80	REVISED FOR
99	1	99	W	12-80	REVISED FOR
100	1	100	W	12-80	REVISED FOR

6. DIODES D2, D3, D8, D9, D25, D27, D31, AND D41 ARE OPPOSITE ORIENTATION TO ALL OTHER DIODES.
7. CUT PIN 5 FROM J5 (FOR KEY).

ETCH REV.	C
-----------	---

SIGNATURES	DATE	TITLE
DRN. <i>[Signature]</i>	12-80	digital
CHK'D. <i>[Signature]</i>	12-80	
RECH. ENG. <i>[Signature]</i>	2/8/81	
PROJ. ENG. <i>[Signature]</i>	2/10/81	
PROD. <i>[Signature]</i>	2-18-81	
SCALE 2/1		
SHT. 1 OF 3		
NEXT HIGHER ASSY. B-DD-5413857-0		

TUV: WO#172325



U/L APPVL REQD

DIMENSIONAL TOLERANCE, INCHES .XXX = ± 0.020

REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE
H7200 MAJOR BOARD

DOCUMENT NUMBER		
SIZE CODE	NUMBER	REV
DUA	5413857-0-0	C
SCALE	2/1	SHEET 2 OF 3

THE DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION

WIRE ADDS

- 0-1 FROM FEED THRU RIGHT SIDE OF R70 TO FEED THRU BELOW R8 USING ITEM 106
- 0-2 FROM FEED THRU BELOW E11-2 TO FEED THRU NEAR E9-1 USING ITEM 124
- 0-3 FROM FEED THRU BELOW E11-4 TO FEED THRU BELOW E9-1 USING ITEM 124
- 0-10 FROM FEED THRU ABOVE R117, TO FEED THRU RIGHT SIDE E10 PIN 8 USING ITEM 124.

COMPONENT ADDS

- 0-4 C5 (.01UF) IN PARALLEL WITH R86
- 0-5 C6 (.1UF) FROM ETCH AT C44 TO FEED THRU NEAR E 14/8
- 0-6 R9 (270, 1/4W) FROM LEFT TERMINAL OF D26 TO RIGHT TERMINAL OF R58
- 0-7 R45 (30 1/4 W) FROM E6/5 TO E6/7; USE EYELETS (ITEM 149) AND WIRES (ITEM 124)
NOTE: EYELETS MUST BE 1/16 IN MINIMUM FROM ETCHES AT R63, R59

WIRE ADDS

- 1-1 FROM E6-5 TO LOWER END OF R45 USING ITEM 124.
- 1-2 FROM E6-7 TO UPPER END OF R45 USING ITEM 124.
- 1-3 FROM PTH AT LEFT OF D1 TO PTH ABOVE D1 USING ITEM 154.

COMPONENT DELETIONS

- 1-4 REMOVE R1, DEC #1314270-02.
- 1-5 REMOVE R2, DEC #1314270-02.
- 1-6 REMOVE R45, DEC #1302751-00.
- 1-7 REMOVE D32, DEC #1105275-00.

COMPONENT ADDS

- 1-8 INSTALL R1, DEC #1314270-02, BY DRILLING TWO .055" HOLES ABOVE D1. SEE SHT.2 OF UA FOR LOCATION. USE SPACERS ON LEADS. (ITEM 144).
- 1-9 INSTALL R2, DEC #1314270-02, USING SPACERS ON THE LEADS (ITEM 144). INSERT ONE LEAD INTO PTH NEAR ETCH CUT TO THE RIGHT OF R4. TACK SOLDER THE OTHER LEAD TO THE ETCH ON THE OTHER SIDE OF THE ETCH CUT.

- 1-10 INSTALL R45, DEC #1302751-00, BY DRILLING TWO .055" NEAR J3. SEE SHT.2 OF UA FOR LOCATION. INSTALL EYELETS (ITEM 149) IN THESE HOLES. MOUNT R44 VERTICLE WITH SLEEVING (ITEM 155) ON LEAD. SEE VIEW B-B ON SHT.1 OF UA.
- 1-11 CONNECT ANODE OF D32 TO CATHODE OF D35, BOTH DEC #1105275-00, BY TWISTING LEADS, SOLDERING AND TRIMMING EXCESS, INSTALL SHORT PIECE OF ITEM 155 ON THE OTHER TWO LEADS AND INSERT AS ONE COMPONENT IN LOCATION SHOWN, (BELOW D33), WITH D35 ON THE LEFT AND D32 ON THE RIGHT. SEE VIEW C-C ON SHT. 1 OF UA.

NOTE: ECO 5413857-TWO01 ALSO CHANGES THE VALUE OF R44, R49, R50, R56, R62, R64, R65, R86, R140, C29, C30 AND D31. SEE REV B PARTS LIST OR ECO IF MORE INFORMATION IS NEEDED.

ECO #2

COMPONENT DELETIONS SIDE 1

- 2-1 DELETE C5 DEC #1001610-00.
- 2-2 DELETE D28 DEC #1117992-00.

COMPONENT ADDS SIDE 1

- 2-3 ADD D28 DEC #1117992-01
- 2-4 ADD R145 DEC #1311996-01 AND TO BOTH LEADS ADD SPACERS (ITEM 144) DEC #9009798-00 INSERT ONE LEAD IN PTH RIGHT OF R2 AND TACK SOLDER REMAINING LEAD TO ETCH UNDER AND NEAR LEFT SIDE OF R3.
- 2-5 ADD R144, DEC #1302751-00 AND C53 DEC #1010978-36 BY TWISTING AND SOLDERING ONE LEAD FROM EACH COMPONENT TOGETHER (CLIP OFF EXCESS LEAD) TACK SOLDER LEAD OF R144 TO ETCH LEADING TO E8-8 AND TACK SOLDER LEAD OF C53 TO ETCH BETWEEN R44 AND C23.

WIRE ADD SIDE 1

- 2-6 FROM PTH BELOW AND BETWEEN R2 AND R145 TO ETCH NEXT TO PTH LOCATED TO THE LEFT OF D1 (TACK SOLDER) USE ITEM 154.

REVISION HISTORY		
DATE	ECO NUMBER	REV.

--	--	--

DOCUMENT NUMBER		
SIZE	CODE	NUMBER
D	UA	5413857-0-0
SCALE		SHEET 3 OF 3

TITLE
H7200 MAJOR BD

AUTOMATED BY FRTLST.3P(44)

PARTS LIST

SHEET A1 OF A4

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
1	1	D-MD-5013856-0-0	5013856-00	DRILL + ETCH BRD	1		
2	2		1000012-00	56.0 MMF 100V 5%200PPM MICA	1		C15
3	3		1013466-06	100.0 MMF 50V 5% CER	3		C25,C44,C47
4	4		1010978-24	.01 MFD 50V 10% CER	1		C46
5	5		1001765-00	.005 MFD 100V 20% Z5T DISC	4		C9,C13,C16,C19
6	6		1018000-00	2.2 MFD 63V +50-10 AL EL	2		C18,C22
7	7		1010274-00	.22 MFD 50V +80-20% Z5U CER	1		C21
8	8		1010978-36	.1 MFD 50V 10% CER	12	CONT	C14,C24,C34,C35,C40-C42,C45,C6, C51,C43,C17
9	9		1011847-01	.01 MFD 400V 10% POLYPROP	1		C36
10	10		1011847-03	.0047 MFD 600V 10% POLYPROP	2		C3,C4
11	11		1012784-00	.047 MFD 50V +80-20% CER	1		C10
12	12		1010274-02	.1 MFD 50V +80-20% CER	1		C27
13	13		1015755-00	.047 MFD 270V 20% POLYPROP	1		C11
14	14		1000009-00	33.0 MMF 100V 5%200PPM MICA	1		C39
15	15		1014169-00	1000.0 MMF 100V 1%200PPM MICA	2		C23,C26
16	16		1011740-00	5600.0 MMF 50V 10% CER	2		C28,C50
17	17		1018000-01	15 MFD 25V +50-10 AL EL	2		C20,C33
18	18		1018001-00	100 MFD 20V 15% AL EL	1		C32
19	19		1000023-00	330.0 MMF 100V 5%200PPM MICA	1		C49
20	20		1011740-05	1000.0 MMF 50V 10% CER	1		C37
21	21		1000055-00	2200.0 MMF 250V 20% Y5S DISC	1		C48
22	22		1018929-00	330.0 MMF 1000V 5% 70PPM MIC	1		C30
23	23		1018001-01	15 MFD 60V 15% AL EL	1		C31
24	24		1012783-00	.022 MFD 50V +80-20% CER	2		C12,C29
25	25		1012312-00	.47 MFD 50V +80-20% CER	1		C52
26	26		1117992-00	IN 5758 DIAC 320V BILATERAL TRIG	1		D28
27	27		1110968-00	2N 5062 SCR 3100V I=.8A T092	1		D29
28	28		1105275-00	D 672 TR= 15NS PIV= 60V SI	35		D18,D22-D27,D32,D33,D41-D65,D35
29	29		1112594-02	A115M PIV=600 I= 3A	2		D2,D3

REVISION HISTORY			BASIC PART NO: 5413857			DRN: J. FERGUSON			DATE: 16-NOV-81			DIGITAL		
ENG	ECO NUMBER	REV	SECTION A OF A			CHK'D: K. SHEYTANIAN			DATE: 16-NOV-81			TITLE PARTS LIST		
INITIAL		B	SECTION VARIATION INDEX									H7200 MAJOR BOARD		
			[A] 00			DES.ENG: C. LANDINO			DATE: 16-NOV-81					
			[B]											
			[C]			RESP.ENG.: C. LANDINO			DATE: 16-NOV-81			DOCUMENT NUMBER		
			[D]											
			[E]											
			[F]			MFG.ENG.: H. ORTIZ			DATE: 16-NOV-81			SIZE CODE NUMBER REV		
			[G]											
			[H]											
			[I]			ASSEMBLY NUMBER:			TOP DOCUMENT NUMBER:			FILE NAME:		
			[J]			D-UA-5413857-0-0			B-DD-5413857-0-0			213108.PLS		
			[K]											
			[L]											
			[M]											
			[N]											
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"														

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A2 OF A4

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
30	30		1112595-01	A114B PIV=200 I= 1A	11		D14-D16,D19-D21,D34,D37-D40
31	31		1114245-00	NBS30600LPIV=600 I=30A	1		D1
32	32		1112595-02	A114M PIV=600 I= 1A	4		D8,D9,D13,D30
33	33		1117061-00	MCR 69-1 THYRISTOR	1		D17
34	34		1105796-01	5796-1PIV=400 I=1A D041	4		D4-D7
35	35		1110994-00	1N 751A VZ= 5.1 5% 40W	1		D68
36	36		1100113-00	0 662 OS 600PCB(STABISTOR)	2		D66,D67
37	37		1212297-02	MATE-N-LOK 9PIN UNIV HEADER	1		J1
38	38		1218241-00	HEADER.156 8PIN KEYED	2		J2,J3
39	39		1216122-08	HEADER.156 6POS KEYED	2		J4,J6
40	40		1212518-04	HEADER.100 24POS STRAIGHT	1		J5
41	41		1214789-00	INSERT,THREADED 6-32, BRASS,ELEC	4		
42	42		1217304-00	HEAT SINK,W/NON-THREADED INSERT	2		
43	43		1216122-00	HEADER.156 4POS KEYED	1		J7
44	44		1214809-01	INSERT,W/O INTERNAL THREADS,THRU	4		
45	45		1214809-03	INSERT,W/O INTERNAL THREADS,THRU	3		
46	46		1300202-00	47.0 .25 W 5.0 % CC	5		R35,R36,R74,R62,R140
47	47		1300229-00	100.0 .25 W 5.0 % CC	2		R58,R104
48	48		1311337-00	56.0 5.0 W 5.0 % WW	1		R11
49	49		1300288-00	270.0 2.0 W 10.0 % CC	1		R13
50	50		1300365-00	1.0 K .25 W 5.0 % CC	4		R18,R25,R47,R119
51	51		1313469-00	240.0 .25 W 5.0 % CC	1		R29
52	52		1303313-00	12.10 K .25 W 1.0 % RN55D-F10	2		R26,R46
53	53		1300447-00	4.70 K .25 W 5.0 % CC	5		R40,R36,R116,R120,R126
54	54		1300479-00	10.0 K .25 W 5.0 % CC	8		R87,R117,R123,R127,R133,R134,
55	55		1300496-00	15.0 K .25 W 5.0 % CC	4	CONT	R136,R71
56	56		1301317-00	10.0 .25 W 5.0 % CC	3		R41,R118,R125,R142
57	57		1301422-00	7.50 K .25 W 5.0 % CC	2		R19,R20
58	58		1301775-00	820.0 .25 W 5.0 % CC	3		R38,R138,R73
59	59		1302466-00	100.0 K .25 W 5.0 % CC	3		R30,R97,R121
60	60		1300277-00	220.0 1.0 W 10.0 % CC	1		R124,R128,R130
61	61		1302612-00	1.78 K .25 W 1.0 % RN55D-F10	1		R61
62	62		1302177-00	47.0 K .25 W 5.0 % CC	10		R84
63	63		1302377-00	39.0 .25 W 5.0 % CC	1	CONT	R37,R89,R90,R105-R107,R111-R113,
64	64		1302398-00	470.0 K .25 W 5.0 % CC	2		R131
65	65		1302514-00	39.0 K .25 W 5.0 % CC	1		R31
66	66		1302645-00	1.10 K .25 W 1.0 % RN55D-F10	1		R93,R108
67	67		1303114-00	1.0 K .25 W 1.0 % RN55D-F10	7		R39
68	68	BLANK		*** THIS ITEM IS NOT USED ***	-		R34
69	69		1313476-00	51.10 K .25 W 1.0 % RN55D-F10	1		R16,R21-R24,R33,R57
70	70		1305516-00	128.0 K .25 W .10% RN55E-B 2	1		R85
71	71		1309963-00	260.0 5.0 W 3.0 % WW	2		R80
72	72		1312546-00	16.50 K .25 W 1.0 % RN55D-F10	1		R7,R8
73	73		1312932-00	36.0 K .25 W 5.0 % CC	2		R75
74	74		1311320-00	90.90 K .25 W 1.0 % RN55D-F10	1		R42,R122
75	75		1313752-00	15.0 K .25 W 1.0 % RN55D-F10	1		R48

D	I	G	I	T	A	L	TITLE	H7200 MAJOR BOARD	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5413857-0-DBP	B

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A3 OF A4

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
					00	
76	76		1314088-00	20.0 K 5.0 W 5.0 % WW	2	R3, R4
77	77		1316444-00	150.0 K .25 W 1.0 % RN55D-F10	1	R77
78	78		1314350-00	1.0 2.0 W 1.0 % FUSE	2	R5, R6
79	79		1303110-00	19.60 .25 W 1.0 % RN55D-F10	2	R28
80	80		9006656-00	WASHER, FLAT .312 O.D. X .156 I	2	
81	81		1300255-00	150.0 1.0 W 5.0 % CC	1	R32
82	82		1300488-00	12.0 K .25 W 5.0 % CC	2	R67, R91
83	83		1300417-00	2.20 K .25 W 5.0 % CC	3	R94, R95, R141
84	84		1301320-00	1.20 K .25 W 5.0 % CC	1	R43
85	85		1311522-00	200.0 .25 W 5.0 % CC	2	R17, R88
86	86		1314119-00	44.20 K .25 W 1.0 % RN55D-F10	1	R78
87	87		1313596-00	20.0 K .25 W 1.0 % RN55D-F10	1	R51
88	88		1301972-00	270.0 .25 W 5.0 % CC	2	R137, R9
89	89		1305346-00	27.0 K .25 W 5.0 % CC	8	R98-R103, R109, R110
90	90		1314643-00	430.0 K .25 W 5.0 % CC	1	R115
91	91		1317522-00	1.0 .25 W 5.0 % CC	1	R76
92	92		1300439-00	3.30 K .25 W 5.0 % CC	1	R27
93	93		1300271-00	220.0 .25 W 5.0 % CC	3	R14, R132, R143
94	94		1314270-02	2.50 15.0 % NTC THERM	2	R1, R2
95	95		1303155-00	21.50 K .25 W 1.0 % RN55D-F10	2	R79, R44
96	96		1317968-00	150.0 K 2.0 W 5.0 % CC	1	R59
97	97		1300368-00	1.0 K 1.0 W 5.0 % CC	1	R60
98	98		1317595-00	270.0 K 1.0 W 5.0 % CC	1	R70
99	99		1315052-00	500.0 5.0 W 5.0 % WW	1	R63
100	100		1303312-00	10.0 K .25 W 1.0 % RN55D-F10	1	R53
101	101		1314252-00	130.0 K .25 W 1.0 % RN55D-F10	1	R52
102	102		1312682-00	3.0 3.0 W 5.0 % WW	1	R12
103	103		1315518-02	10.0 1.0 W 1.0 % FUSE	1	R49
104	104		1314990-00	158.0 K .25 W 1.0 % RN55D-F10	1	R114
105	105		1313589-00	1.40 K .25 W 1.0 % RN55D-F10	1	R15
106	106		9107688-55	WIRE (WRAP) 24 AWG UL1327	A/R	
107	107		1302388-00	2.0 K .25 W 5.0 % CC	1	R92
108	108		1301969-00	22.0 .25 W 5.0 % CC	1	R135
109	109		1302751-00	30.0 .25 W 5.0 % CC	1	R45
110	110		1304841-00	75.0 K .25 W 5.0 % CC	1	R139
111	111		1301423-00	6.80 K .25 W 5.0 % CC	1	R66
112	112		1302394-00	30.0 K .25 W 5.0 % CC	1	R68
113	113		1303045-00	3.16 K .25 W 1.0 % RN55D-F10	1	R82
114	114		1302859-00	5.76 K .25 W 1.0 % RN55D-F10	1	R56
115	115		1303044-00	100.0 K .25 W 1.0 % RN55D-F10	1	R83
116	116		1309414-00	9.76 K .25 W 1.0 % RN55D-F10	1	R81
117	117		1510705-00	XA Q5 NPN 500MW SI 60 30 P	6	Q4-Q6, Q8, Q11, Q18
118	118		1510706-00	XA 55 PNP 500MW SI 60 50 P	3	Q9, Q10, Q12, Q17, Q19
119	119		1511686-01	FET N 350MW TO-92	3	Q13, Q14, Q16
120	120		1517365-00	2N 6678 NPN 175W SI	2	Q1, Q2
121	121		1512790-00	D 44C12 NPN 30W SI	1	Q3
122	122		1517551-00	J 176 FET 350MW SI P CHNNL	1	Q15
123	123		1516119-00	NPN 75W SI	1	Q7

D	I	G	I	T	A	L	TITLE	H7200 MAJOR BOARD	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	FL	5413857-0-DBP	B

AUTOMATED BY PRTLST.3P(44)

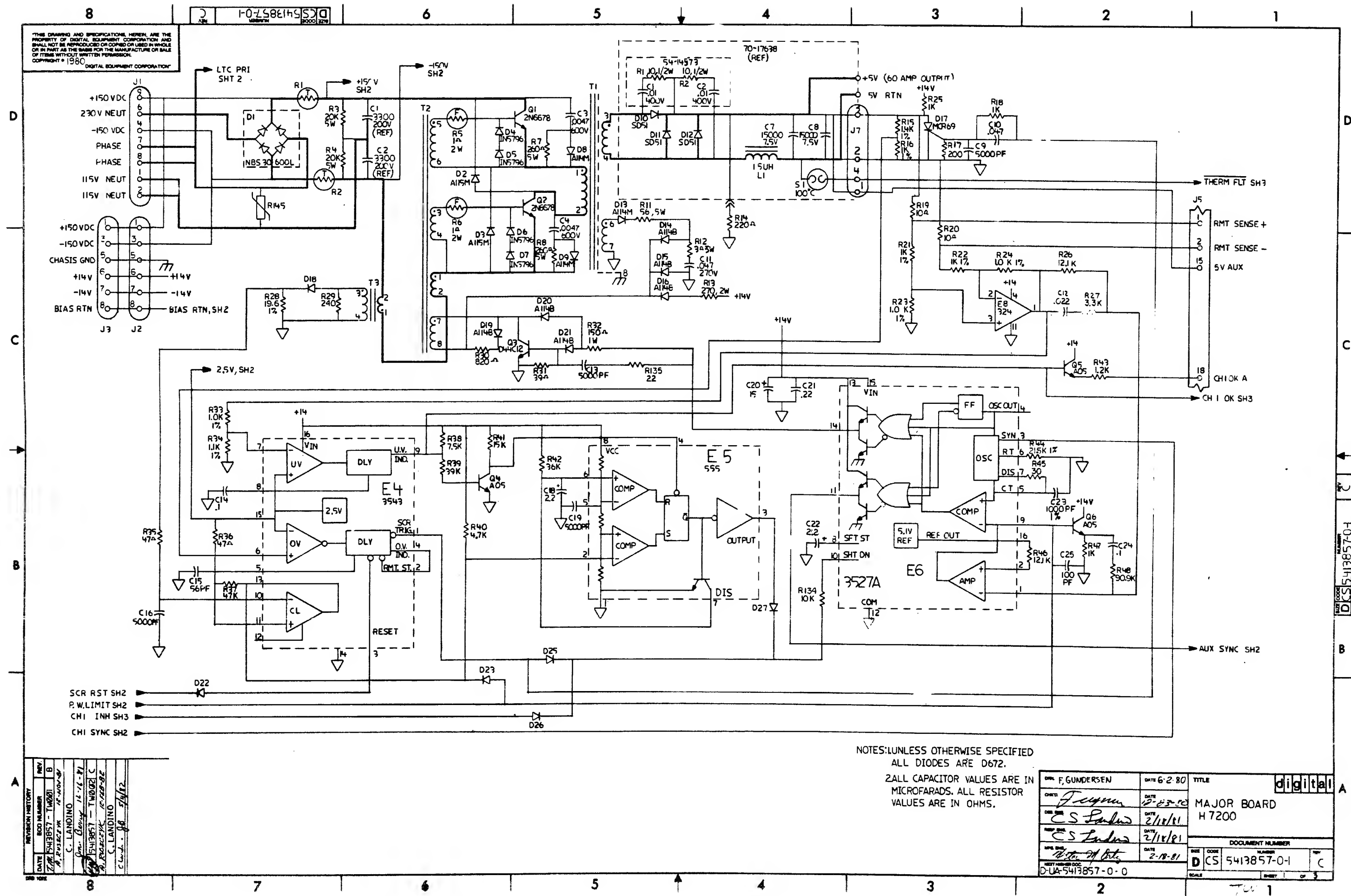
PARTS LIST

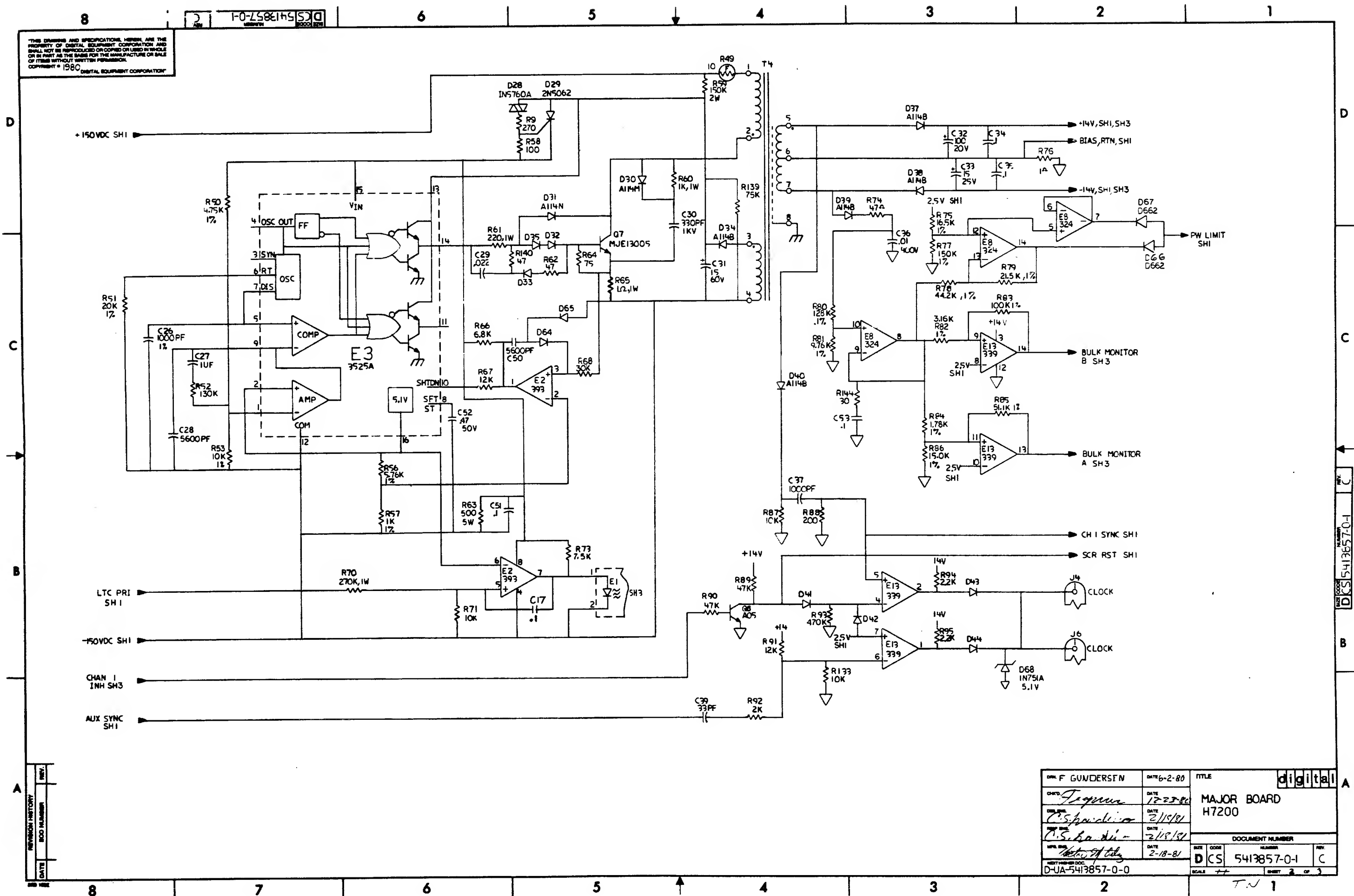
SHEET A4 OF A4

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
124	124		9105740-55	WIRE(WRAP)30AWG UL1423	A/R	
125	125		1617557-00	XFMR,CURRENT RATIO 1:2:100 PC MT	1	T3
126	126		1617450-00	PULSE XFMR,RATIO 40:3,3:1	1	T2
127	127		9010265-00	SPACER,INT.THO. 6-32X .187	6	
128	128		1911944-00	555CN TIMER,FUNCT.BLOCK	1	E5
129	129		1912107-00	324 OP AMP,QUAD	1	E8
130	130		1912108-00	339 VOLT CMPRTR,QUAD	1	E13
131	131		1914194-00	OPTP-COUPLED ISOLATOR	1	E1
132	132		1916819-00	3527A MODULATOR,REGULATING	1	E6
133	133		1917059-00	3543 P.S. SUPERVISORY CIR	1	E4
134	134		1914156-00	LM 393 VOLT.COMPARATOR DUAL	1	E2
135	135		1916820-00	SG3525J MODULATOR-REGULATING	1	E3
136	136		2113635-00	4071B OR GATE-QUAD 2IN CMO	1	E11
137	137		2113637-00	4073B AND GATE-TRIPLE 3IN	1	E12
138	138		2113612-00	4019B AND-OR SELECT GATE-Q	1	E9
139	139		2113645-00	4098B MULTIVIBRATOR,DUAL M	1	E7
140	140		2113644-00	4093B NAND GATE-QUAD 2IN C	2	E14,E15
141	141		2113615-00	4025UBNOR GATE-TRIPLE 3IN	1	E10
142	142		9009676-00	TERM,SOLDER BARRIER STR	2	
143	143		9007793-01	SCREW,PAN,PHIL 6-32X 9/16 SS	4	
144	144		9009798-00	SPACER, CERAMIC, .186 ODX.078 ID	4	
145	145		9009798-01	SPACER, CERAMIC, .186 ODX.078 ID	12	
146	146		9007801-00	WASHER, LOCK, S.S. #6	4	
147	147		9008268-00	COMPOUND, THERMAL JOINT	A/R	
148	148		1001610-00	.01 MFD 50V +80-20% Z5U CER	1	C5
149	149		9006731-00	EYELET, (BRASS NICKEL PLATED) .0	2	
150	150		1300521-00	47.50 K .25 W 1.0 % RN55D-F10	1	R50
151	151		1302379-00	75.0 .25 W 5.0 % CC	1	R64
152	152		1318864-00	1.0 1.0 W 5.0 % WW	1	R65
153	153		1115112-00	PIV=800V I=1A	1	D31
154	154		9107696-00	WIRE,SOLID,18AWG,IPVC UL1429	A/R	
155	155		9107256-11	TUBING,THIN WALL,.027ID UL	A/R	

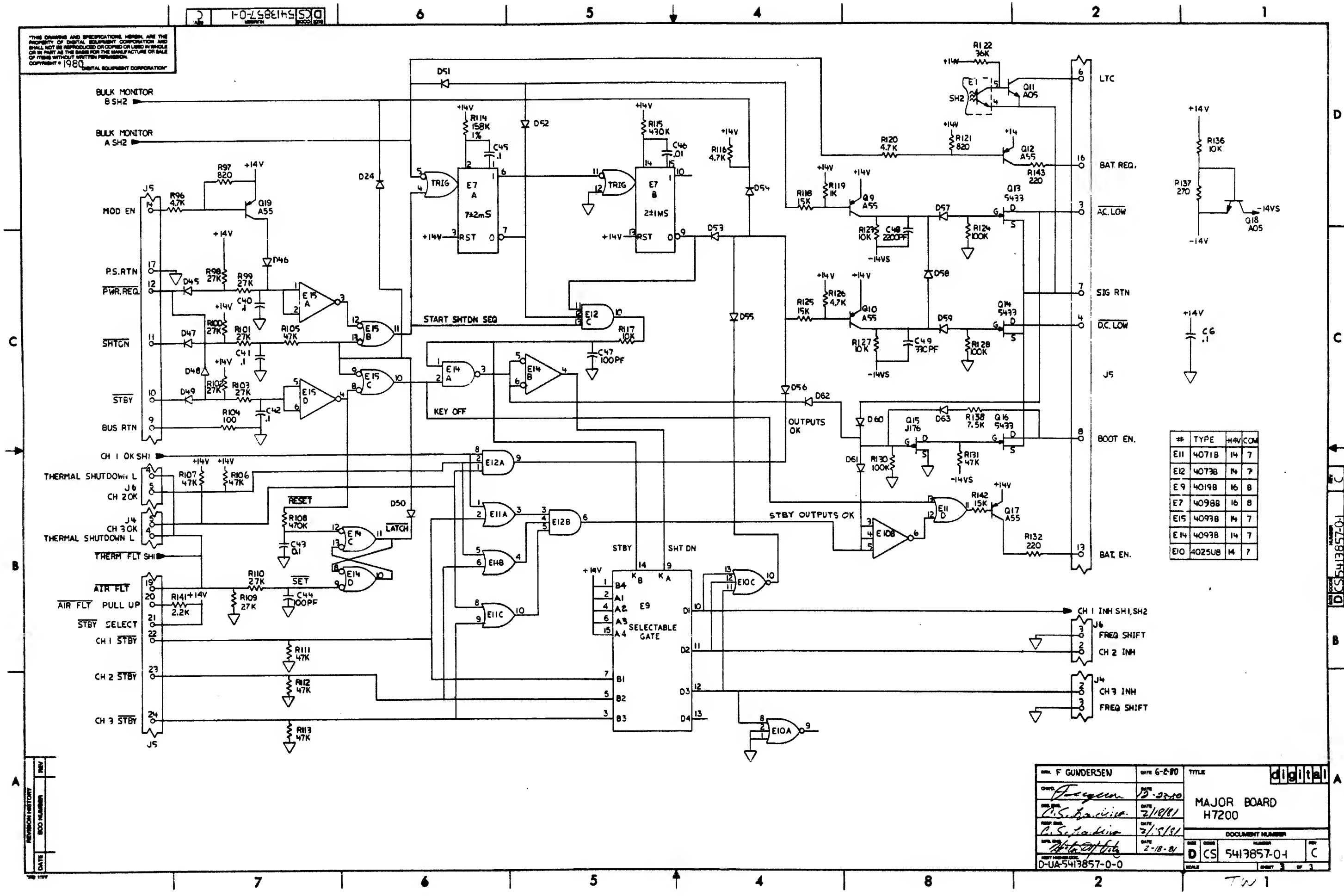
156 NOTE: ITEM #124; .82' IS USED
157 NOTE: ITEM #106; .33' IS USED
158 NOTE: ITEM #154; .11' IS USED
159 NOTE: ITEM #155; .07' IS USED

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							H7200 MAJOR BOARD		K	PL	5413857-0-DBP	B

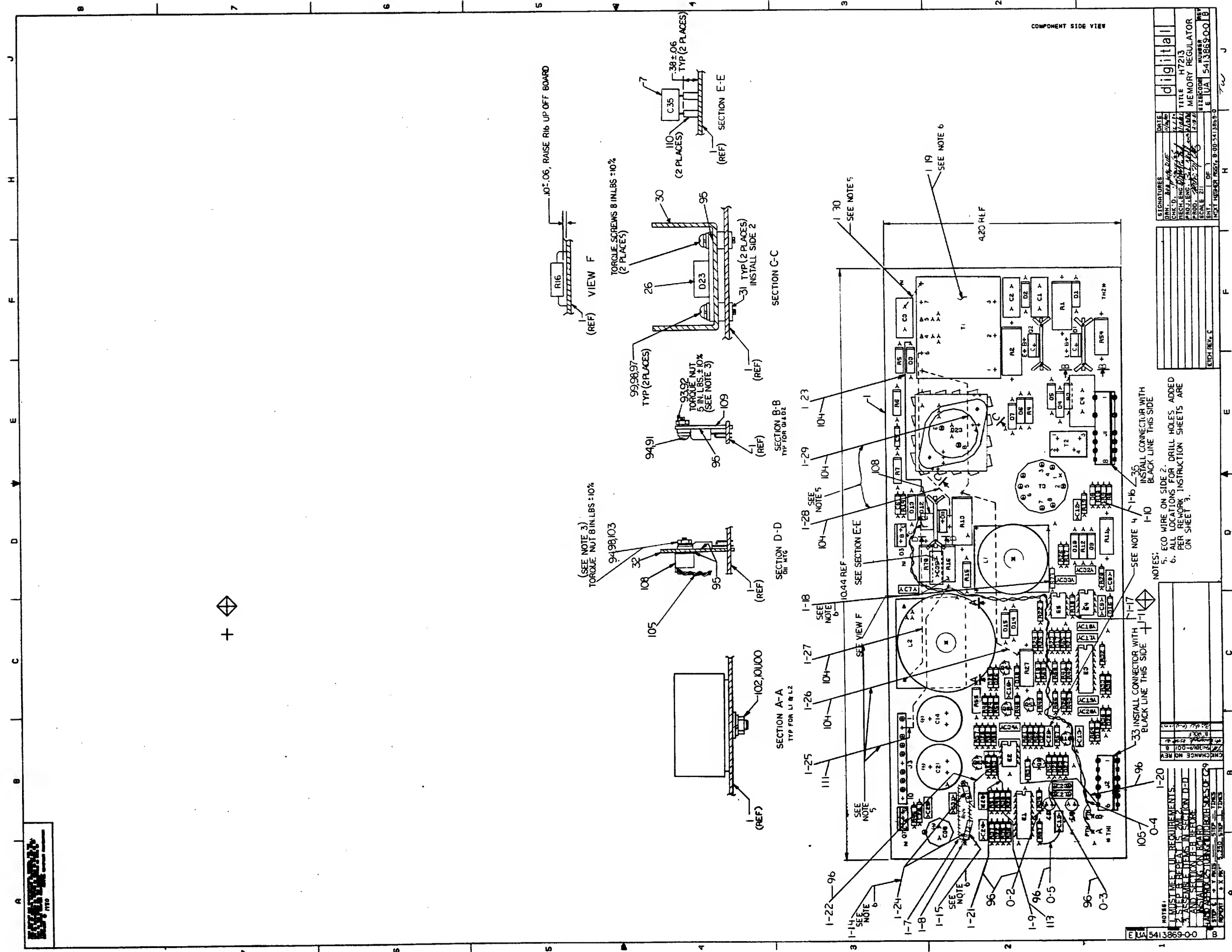


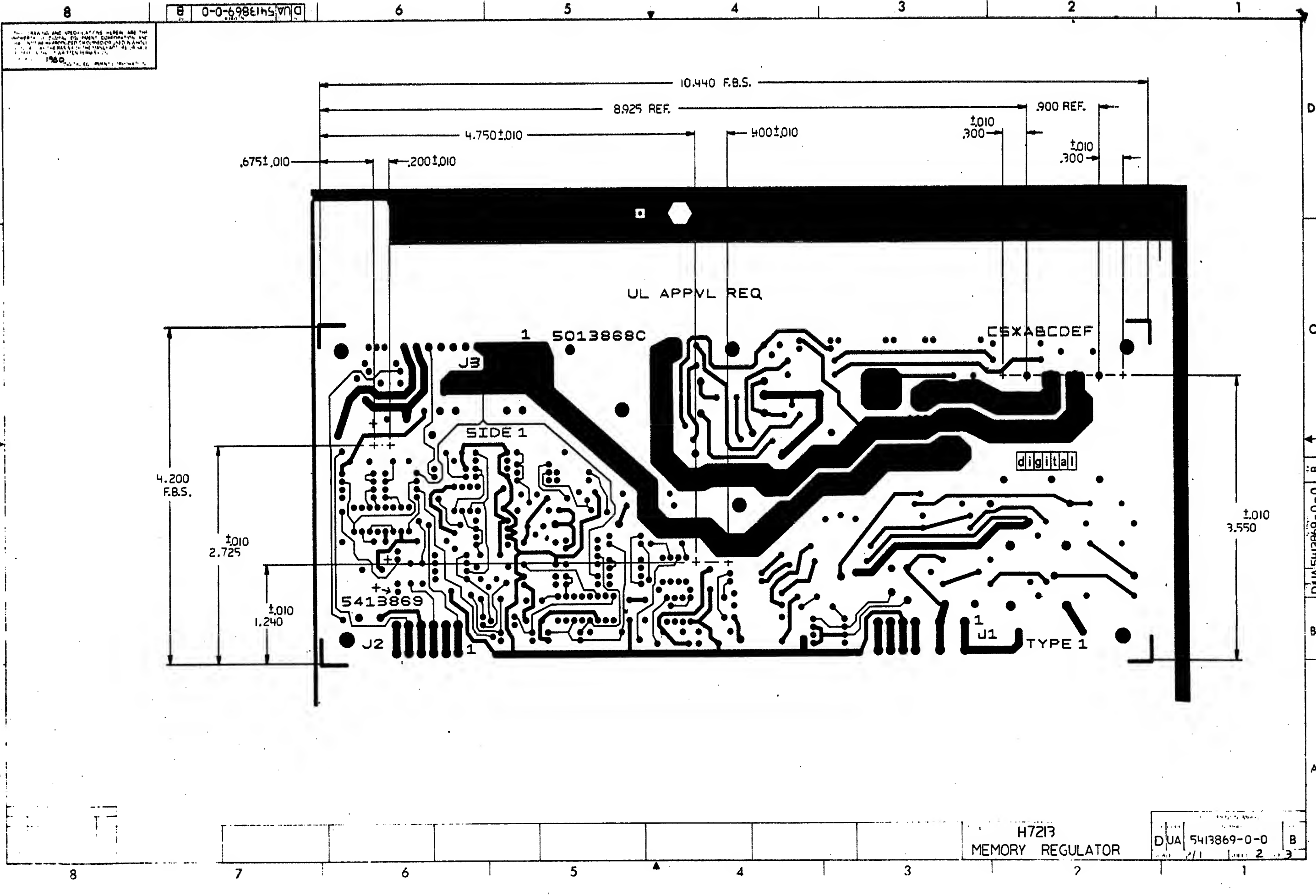


THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION

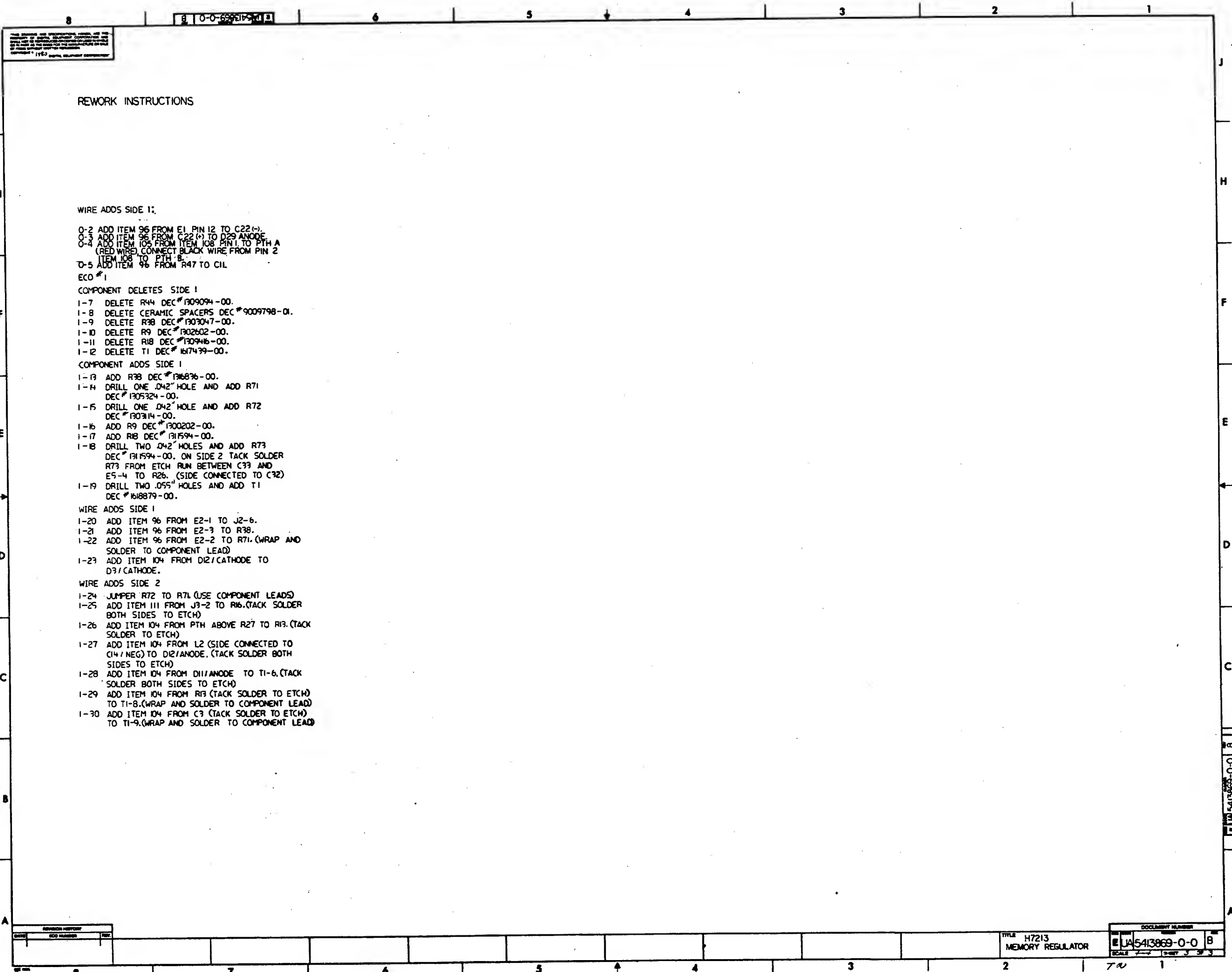


F GUNDERSEN		DATE 6-2-80	TITLE	digital
DESIGNED <i>[Signature]</i>		DATE 12-22-80	MAJOR BOARD H7200	
CHECKED <i>[Signature]</i>		DATE 2/18/81	DOCUMENT NUMBER	
APP'D <i>[Signature]</i>		DATE 2/18/81	D CS 5413857-0-1 C	
D-UA-5413857-0-0				





THE DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF THE UNITED STATES GOVERNMENT AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE UNITED STATES GOVERNMENT.



THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF THE UNITED STATES GOVERNMENT AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE GOVERNMENT.

REWORK INSTRUCTIONS

WIRE ADDS SIDE 1:

- 0-2 ADD ITEM 96 FROM E1 PIN 12 TO C22 (-).
- 0-3 ADD ITEM 96 FROM C22 (+) TO D29 ANODE.
- 0-4 ADD ITEM 105 FROM ITEM 108 PIN 1 TO PTH A (RED WIRE). CONNECT BLACK WIRE FROM PIN 2 (ITEM 108) TO PTH B.
- 0-5 ADD ITEM 96 FROM R47 TO C11.

ECO #1

COMPONENT DELETES SIDE 1

- 1-7 DELETE R44 DEC#1309094-00.
- 1-8 DELETE CERAMIC SPACERS DEC#9009798-01.
- 1-9 DELETE R38 DEC#1303047-00.
- 1-10 DELETE R9 DEC#1302602-00.
- 1-11 DELETE R18 DEC#1309446-00.
- 1-12 DELETE T1 DEC#1617439-00.

COMPONENT ADDS SIDE 1

- 1-13 ADD R38 DEC#136836-00.
- 1-14 DRILL ONE .042" HOLE AND ADD R71 DEC#1305324-00.
- 1-15 DRILL ONE .042" HOLE AND ADD R72 DEC#1303114-00.
- 1-16 ADD R9 DEC#1300202-00.
- 1-17 ADD R18 DEC#131594-00.
- 1-18 DRILL TWO .042" HOLES AND ADD R73 DEC#131594-00. ON SIDE 2 TACK SOLDER R73 FROM ETCH RUN BETWEEN C39 AND E5-4 TO R26. (SIDE CONNECTED TO C32)
- 1-19 DRILL TWO .055" HOLES AND ADD T1 DEC#1618879-00.

WIRE ADDS SIDE 1

- 1-20 ADD ITEM 96 FROM E2-1 TO J2-6.
- 1-21 ADD ITEM 96 FROM E2-3 TO R38.
- 1-22 ADD ITEM 96 FROM E2-2 TO R71. (WRAP AND SOLDER TO COMPONENT LEAD)
- 1-23 ADD ITEM 104 FROM D12/CATHODE TO D3/CATHODE.

WIRE ADDS SIDE 2

- 1-24 JUMPER R72 TO R71 (USE COMPONENT LEADS)
- 1-25 ADD ITEM 111 FROM J3-2 TO R16. (TACK SOLDER BOTH SIDES TO ETCH)
- 1-26 ADD ITEM 104 FROM PTH ABOVE R27 TO R13. (TACK SOLDER TO ETCH)
- 1-27 ADD ITEM 104 FROM L2 (SIDE CONNECTED TO C14/NEG) TO D12/ANODE. (TACK SOLDER BOTH SIDES TO ETCH)
- 1-28 ADD ITEM 104 FROM D11/ANODE TO T1-6. (TACK SOLDER BOTH SIDES TO ETCH)
- 1-29 ADD ITEM 104 FROM R13 (TACK SOLDER TO ETCH) TO T1-8. (WRAP AND SOLDER TO COMPONENT LEAD)
- 1-30 ADD ITEM 104 FROM C3 (TACK SOLDER TO ETCH) TO T1-9. (WRAP AND SOLDER TO COMPONENT LEAD)

REVISION HISTORY	
DATE	ECO NUMBER

DOCUMENT NUMBER	
TITLE H7213 MEMORY REGULATOR	
SCALE 1-2 1-3 3-3 3-3	

UJA5413669-0-0 B

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
1	1	D-MD-5013868-0-0	5013868-00	DRILL AND ETCH	1	
2	2		1000018-00	120.0 MMF 100V 5X200PPM MICA	3	C18-C20
3	3		1012607-00	560 MFD 20V+100-10% AL EL	1	C30
4	4		1001610-00	.01 MFD 50V +80-20% 25U CER	3	C5, C6, C26
5	5		1010274-00	.22 MFD 50V +80-20% 25U CER	6	C8, C9, C11, C17, C33, C34
6	6		1010978-36	.1 MFD 50V 10% CER	2	C25, C31
7	7		1011847-01	.01 MFD 400V 10% POLYPROP	2	C3, C35
8	8		1000016-00	100.0 MMF 100V 5X200PPM MICA	1	C12
9	9		1014169-00	1000.0 MMF 100V 1X200PPM MICA	1	C23
10	10		1010978-24	.01 MFD 50V 10% CER	1	C29
11	11		1014277-00	3800 MFD 6.3V +75-10% AL EL	2	C14, C21
12	12		1017426-00	2700.0 MMF 250V 10% POLYPROP	2	C1, C2
13	13		1000042-00	1000.0 MMF 100V 5X200PPM MICA	2	C7, C24
14	14		1015573-01	5600.0 MMF 50V 5% CER	1	C10
15	15		1011847-02	.01 MFD 600V 10% POLYPROP	1	C4
16	16		1000020-00	180.0 MMF 100V 5X200PPM MICA	1	C16
17	17		1010978-32	.047 MFD 50V 10% CER	1	C13
18	18		1018000-00	2.2 MFD 63V +50-10% AL EL	1	C22
19	19		1018000-01	15 MFD 25V +50-10% AL EL	1	C15
20	20		1000011-00	47.0 MMF 100V 5X200PPM MICA	1	C32
21	21		1105275-00	D 672 TR= 15NS PIV= 60V SI	11	D8, D17-D22, D24, D27-D29
22	22		1112595-01	A114B PIV=200 I= 1A	10	D1, D3, D4, D6, D7, D9, D10, D12, D14,
23	23		1102495-00	VZ= 3.3 5% .25W	1	D15
24	24		1112595-02	A114M PIV=600 I= 1A	3	D16
25	25		1117555-00	UES2403 RECTIFIER 150V 3A TO220	1	D2, D5, D13
26	26		1116323-00	SD 241 PIV= 45 I=30A	1	D11
27	27		1109517-00	1N 914B TR= 4NS PIV= 75V 5Y	1	D23
28	28		1110766-00	1N 5248B VZ= 18.0 5% .50W	1	D25
29	29		1117061-00	MCR 69-1 THYRISTOR	1	D26

REVISION HISTORY		BASIC PART NO: 5413869		DRN: J. FERGUSON		DATE: 12-22-80		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: B. WALDIE		DATE: 12-22-80		TITLE PARTS LIST	
INITIAL		A	SECTION VARIATION INDEX	DES. ENG: B. WOLF		DATE: 12-22-80		H7213 MEMORY REGULATOR	
			[A] DO	RESP. ENG.: B. WOLF		DATE: 12-22-80		DOCUMENT NUMBER	
			[B]	MFG. ENG.: H. ORTIZ		DATE: 12-22-80		SIZE CODE NUMBER REV	
			[C]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			[D]	D-UA-5413869-0-0		B-00-5413869-0-0		Z1311.PLS 9	
			[E]						
			[F]						
			[G]						
			[H]						
			[I]						
			[J]						
			[K]						
			[L]						
			[M]						
			[N]						

THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A2 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
30	30		1216688-01	HEAT SINK, T03	1		
31	31		1214789-00	INSERT, THREADED 6-32, BRASS, ELEC	2		
32	32		1215228-02	HEAT SINK, T0-220, #6 MTG HOLE	1		
33	33		1217990-04	HEADER.156 6SKT RCPT	1		J2
34	34		1216122-09	HEADER.156 10POS KEYED	1		J3
35	35		1217990-02	HEADER.156 8SKT RCPT	1		J1
36	36		1300229-00	100.0 .25 W 5.0 % CC	3		R36, R45, R64
37	37		1313347-00	220.0 1.0 W 5.0 % CC	1		R27
38	38		1309855-00	300.0 2.0 W 5.0 % CC	2		R1, R2
39	39		1300298-00	330.0 1.0 W 10.0 % CC	1		R11
40	40		1300316-00	470.0 .25 W 5.0 % CC	3		R19, R30, R34
41	41		1300365-00	1.0 K .25 W 5.0 % CC	4		R28, R31, R49, R50
42	42		1300447-00	4.70 K .25 W 5.0 % CC	9		R10, R23, R29, R40, R46, R57, R62, R63, R65
						CONT	
43	43		1300479-00	10.0 K .25 W 5.0 % CC	7		R51, R52, R56, R58, R61, R66, R67
44	44		1300168-00	10.0 .50 W 5.0 % CC	4		R5, R6, R7, R15
45	45		1302411-00	511.0 .25 W 1.0 % RN55D-F10	1		R37
46	46		1301320-00	1.20 K .25 W 5.0 % CC	1		R53
47	47		1302377-00	39.0 .25 W 5.0 % CC	1		R14
48	48		1300356-00	820.0 .50 W 10.0 % CC	1		R12
49	49		1300257-00	150.0 2.0 W 5.0 % CC	1		R13
50	50		1303047-00	464.0 .25 W 1.0 % RN55D-F10	1		R38
51	51		1302957-00	121.0 .25 W 1.0 % RN55D-F10	1		R42
52	52		1303114-00	1.0 K .25 W 1.0 % RN55D-F10	2		R17, R26
53	53		1314492-00	40.20 K .25 W 1.0 % RN55D-F10	1		R35
54	54		1309444-00	2.70 .50 W 10.0 % CC	2		R3, R4
55	55		1314551-00	442.0 .25 W 1.0 % RN55D-F10	2		R41, R43
56	56		1309094-00	100.0 5.0 W 5.0 % WW	1		R44
57	57		1302602-00	56.0 .25 W 5.0 % CC	1		R9
58	58		1303156-00	34.80 K .25 W 1.0 % RN55D-F10	1		R24
59	59		1313841-00	23.20 K .25 W 1.0 % RN55D-F10	1		R39
60	60		1302177-00	47.0 K .25 W 5.0 % CC	2		R47, R60
61	61		1302388-00	2.0 K .25 W 5.0 % CC	1		R20
62	62		1305324-00	4.99 K .25 W 1.0 % RN55D-F10	1		R25
63	63		1317515-00	.04 2.0 W 2.0 % WW	1		R16
64	64		1317522-00	1.0 .25 W 5.0 % CC	1		R8
65	65		1305346-00	27.0 K .25 W 5.0 % CC	2		R33, R68
66	66		1314350-00	1.0 2.0 W 10.0 % FUSE	1		R54
67	67		1309416-00	31.60 K .25 W 1.0 % RN55D-F10	1		R18
68	68		1312565-00	13.30 K .25 W 1.0 % RN55D-F10	1		R21
69	69		1302466-00	100.0 K .25 W 5.0 % CC	1		R48
70	70		1302871-00	1.21 K .25 W 1.0 % RN55D-F10	1		R32
71	71		1316511-00	15.0 K .50 W 5.0 % CC	1		R55
72	72		1300398-00	1.80 K .25 W 5.0 % CC	1		R59
73	73		1312929-00	62.0 .25 W 5.0 % CC	1		R69
74	74		1300171-00	10.0 1.0 W 5.0 % CC	1		R70
75	75		1011683-00	.022 MFD 50V 10% CER	1		C28
76	76		1510705-00	XA 05 NPN 500MW SI 60 50 P	2		Q6, Q10

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							H7213 MEMORY REGULATOR		K	PL	5413869-0-D8P	A

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A3 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		
77	77		1509524-00	2N 3904 NPN 310MW SI 40 40 M	1		Q5
78	78		1S13489-00	2N 4401 NPN 350MW SI 40 20	2		Q4,Q9
79	79		1S12790-00	0 44C12 NPN 30W SI	1		Q3
80	80		1S17060-00	MJE13009 NPN 100W SI	2		Q1,Q2
81	81		1S13490-00	2N 4403 PNP 350MW SI-40 30	1		Q8
82	82		1617450-00	PULSE XFMR,RATIO 40:3,3:1	1		T3
83	83		1617439-00	XFMR P=360V S=2S/62V	1		T1
84	84		1617557-00	XFMR,CURRENT RATIO 1:2:100 PC MT	1		T2
85	85		1617668-00	35.0 UH 20% 1SA	1		L2
86	86		1617667-00	200.0 UH 2A	1		L1
87	87		1917908-00	LM 358N OP AMP DUAL LOW POWE	1		E4
88	88		1916819-00	SG3S27J MODULATOR-REGULATING PUL	1		E1
89	89		1917059-00	3543 P.S. SUPERVISORY CIR	1		E3
90	90		1914156-00	LM 393 VOLT.COMPARATOR DUAL	2		E2,ES
91	91		9006010-01	SCREW,PAN,PHIL 4-40X S/16 SS	2		
92	92		9006556-00	NUT,HEX 4-40X1/4 AF X 3/	2		
93	93		9006688-00	WASHER, LOCK, S.S. #4	2		
94	94		9009769-00	WASHER, RECTANGULAR .40SX.225X.0	3		
95	95		9008268-00	COMPOUND, THERMAL JOINT	A/R		
96	96		9105740-SS	WIRE(WRAP)30AWG UL1423	A/R		
97	97		9006024-01	SCREW,PAN,PHIL 6-32X 1/2 SS	2		
98	98		9007801-00	WASHER, LOCK, S.S. #6	2		
99	99		9006656-00	WASHER, FLAT, .312 O.D. X .156 I	2		
100	100		9009005-00	NUT,HEX 10-32 X1/4 AF X 3	2		
101	101		9007906-00	WASHER, LOCK,S.S. #10	2		
102	102		9006664-00	WASHER, FLAT, .437 OD X .218 ID	2		
103	103		9008957-00	NUT,HEX 6-32X 1/4 AF X 3	1		
104	104		9009798-01	SPACER, CERAMIC, .186 ODX.078 ID	2		
105	105		9107430-02	WIRE,STRND,18AWG,IPVC (UL1429)	A/R		
106	106		1000021-00	220.0 MMF 100V SX200PPM MICA	1		C27
107	107		1314951-00	390.0 K .2S W S.O X CC	1		R22
108	108		1218375-00	THERMOSTAT,0.0170,C220,NORM OPEN	1		
109	109		121S228-01	HEAT SINK,10-220,SINGLE	2		
110	110		9107278-05	TUBING,THIN WALL,.042ID UL	A/R		

111 NOTE: ITEM NO 96 IS .17 FT.
112 NOTE: ITEM NO 105 IS .75 FT.
113 NOTE: ITEM NO 110 IS .10 FT.

D	I	G	I	T	A	L	TITLE	H7213 MEMORY REGULATOR	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	S413869-0-DBP	A

8

DCS 5413869-0-1

6

5

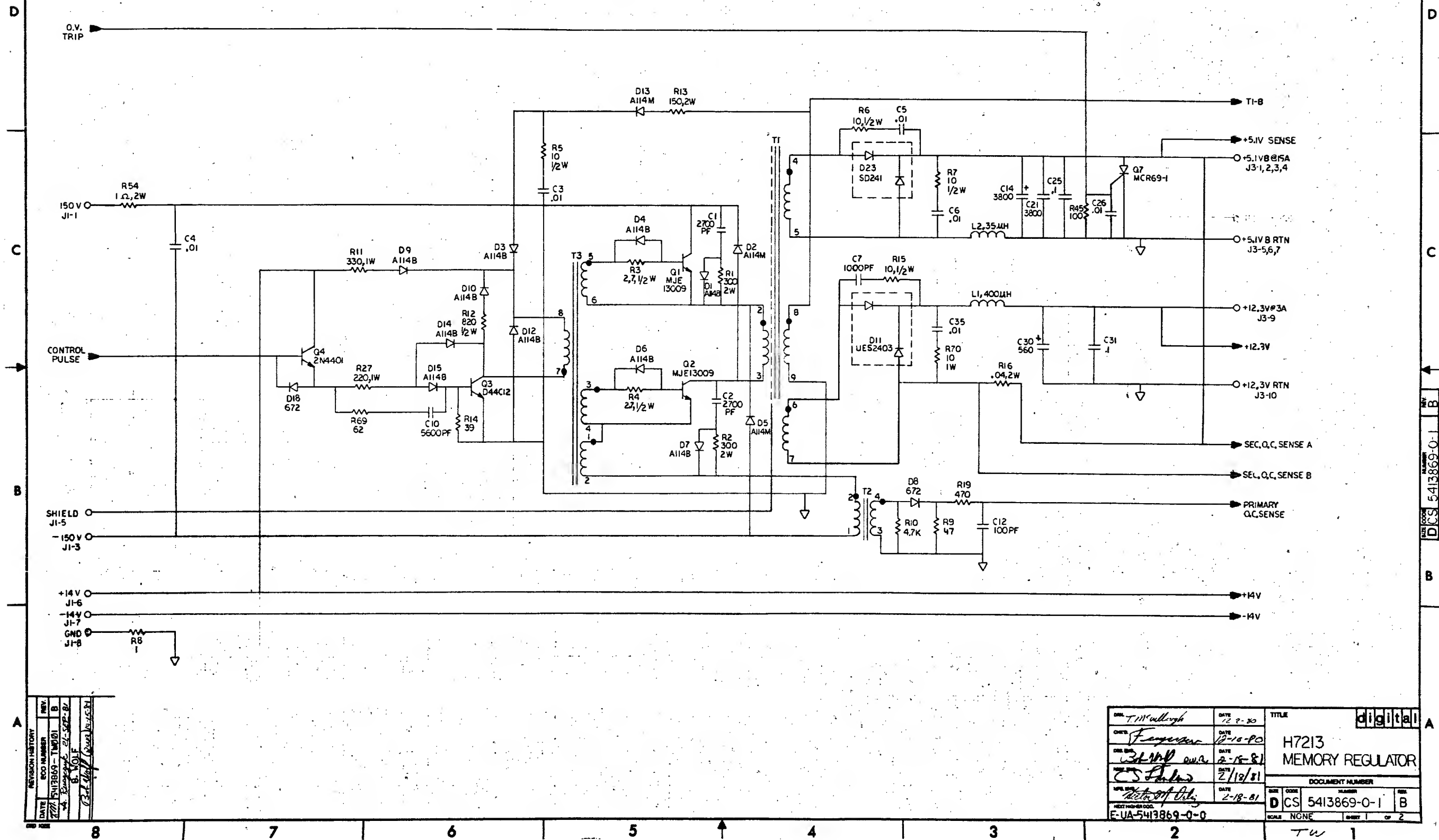
4

3

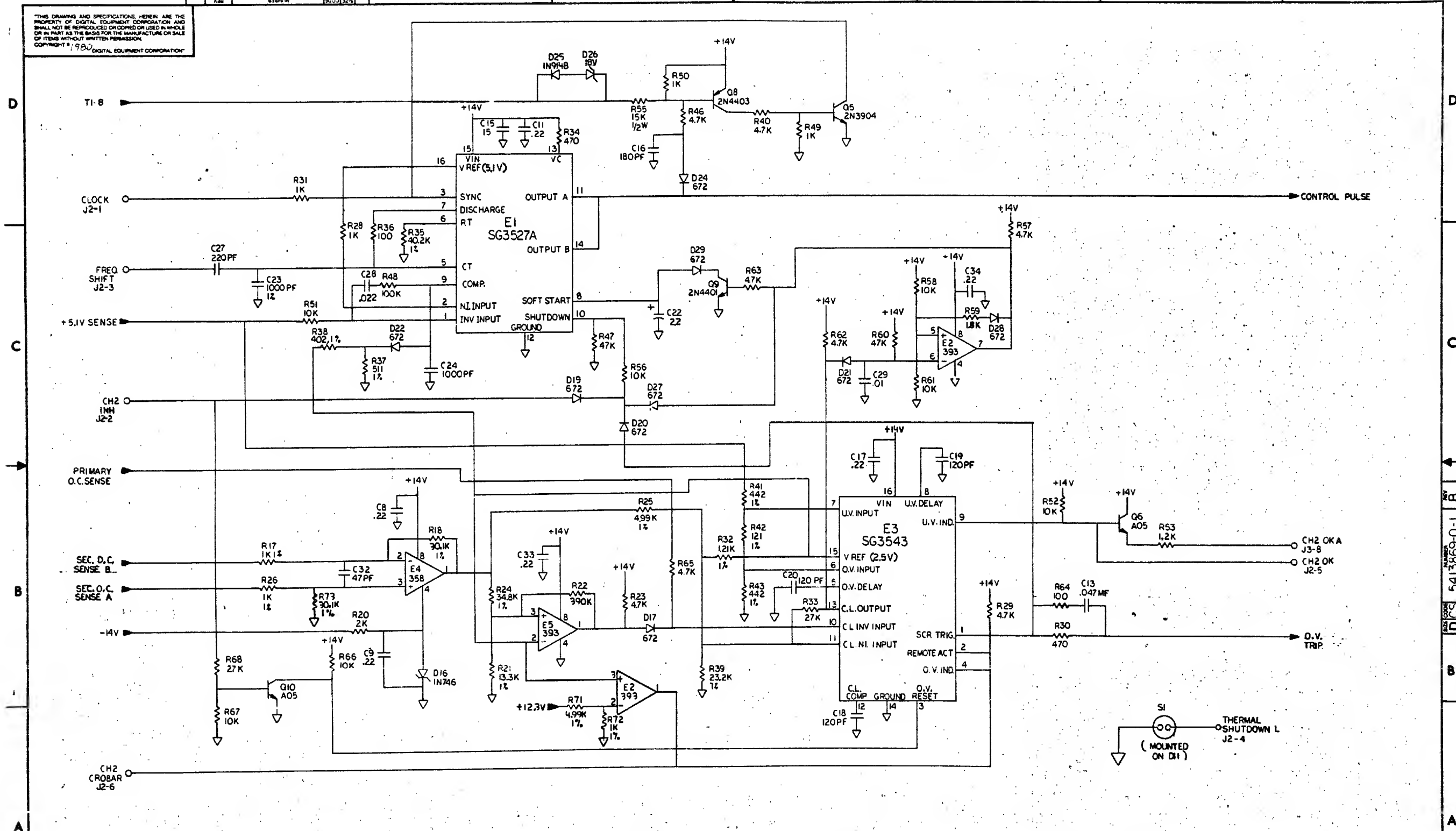
2

1

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1969
DIGITAL EQUIPMENT CORPORATION



THIS DRAWING AND SPECIFICATIONS, HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION

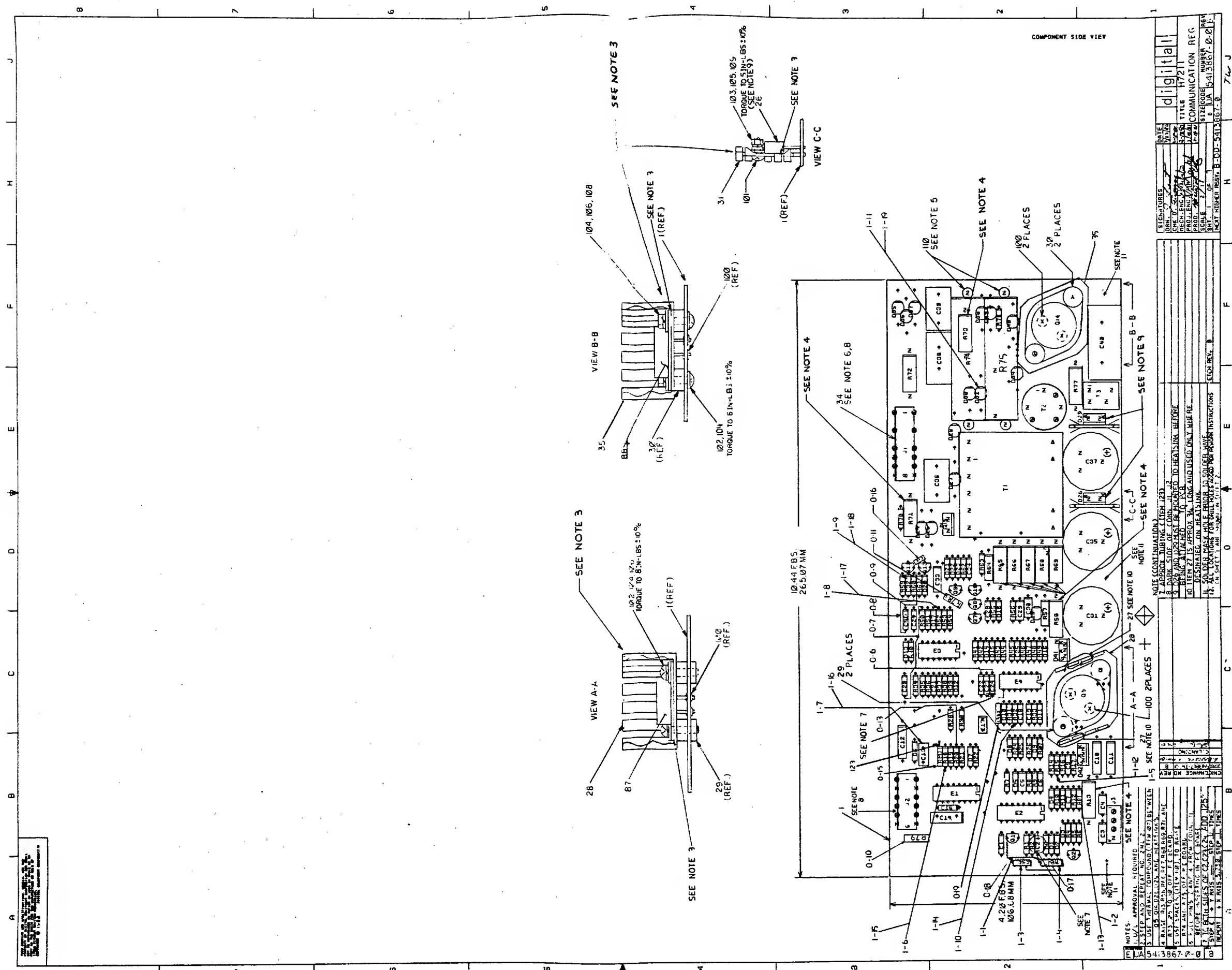


REVISION HISTORY		
DATE	ECO NUMBER	REV.

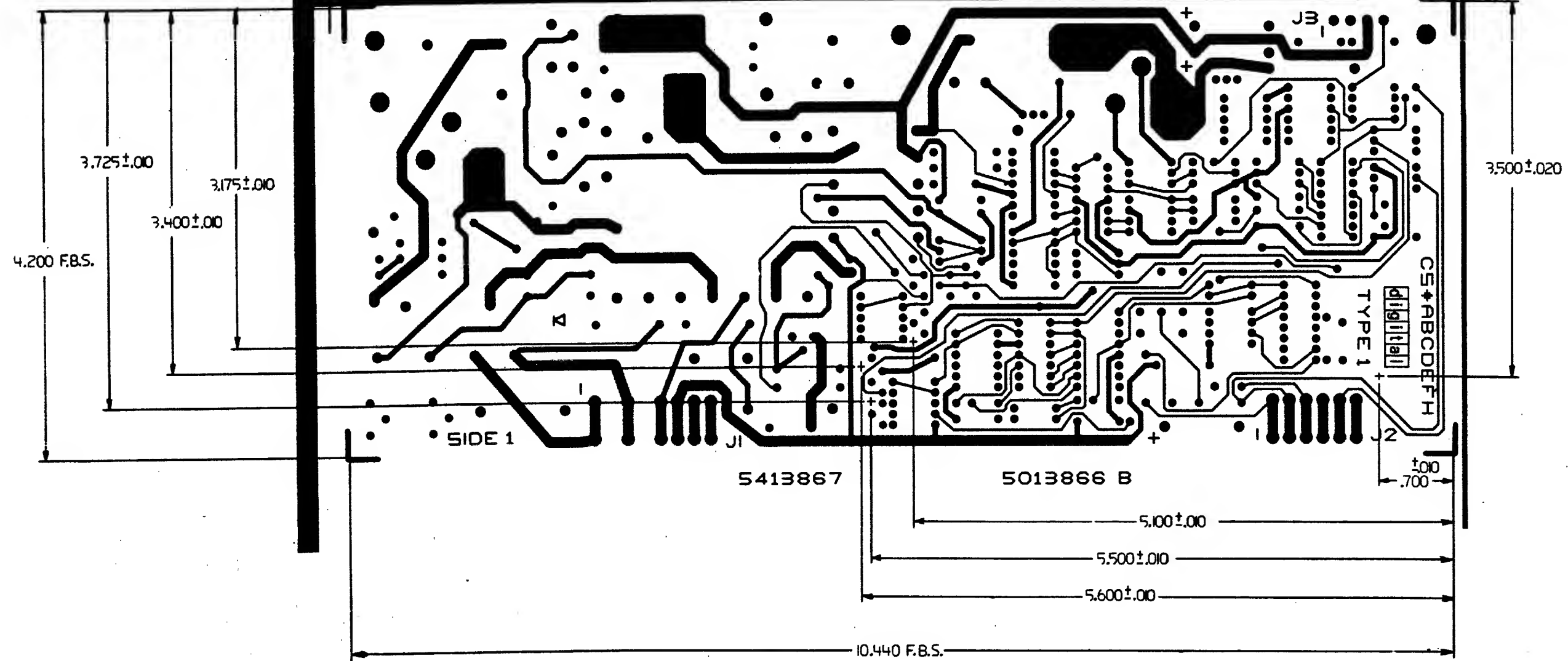
TITLE H7213
MEMORY REGULATOR

DOCUMENT NUMBER		
SIZE	CODE	NUMBER
D	CS	5413869-0-1
SCALE	NONE	SHEET 2 OF 2

Tw 1



THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OF ANY ITEM WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.



REVISION HISTORY		
DATE	ECO NUMBER	REV

TITLE
H7211
COMMUNICATION REG

DOCUMENT NUMBER		
SIZE CODE	NUMBER	REV
DUA	5413867-0-0	B
SCALE 2/1		SHEET 2 OF 3

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF MENTAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR LOANED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 MENTAL EQUIPMENT CORPORATION

REWORK INSTRUCTIONS

WIRE ADDS SIDE 1

- 0-6 FROM C22 TO C24
- 0-7 FROM C20 TO R50
- 0-8 FROM C41 TO R60
- 0-9 FROM OTHER SIDE OF C41 TO OTHER SIDE OF R60.
- 0-13 FROM R20 TO PTH LEADING TO J2 PIN 1
- 0-18 FROM Q1/COLLECTOR TO R81.(WRAP WIRE AROUND COMPONENT LEAD)

COMPONENT ADDS SIDE 1

- 0-10 INSTALL R79 BY DRILLING ONE .042" HOLE AS SHOWN AND TACK SOLDER TO LARGE GND. ETCH ON SIDE 2, ALSO TACK SOLDER OTHER SIDE OF RESISTOR TO ETCH LEADING TO J2 PIN 5 SIDE 1
- 0-11 INSTALL R78 BY DRILLING ONE .042" HOLE AS SHOWN AND TACK SOLDER TO SIDE 2 ETCH LEADING TO BASE OF Q9. ALSO TACK SOLDER OTHER SIDE OF R78 TO ETCH BETWEEN R54 AND E3 PIN 1, SIDE 1
- 0-15 INSTALL R80 BY TACK SOLDERING ONE SIDE TO ETCH RUN LEADING TO E1-10 AND TACK SOLDER OTHER SIDE TO ETCH RUN BETWEEN D6/CATHODE AND PTH UNDER R30.(USE .25" APPROX. SLEEVING, ITEM 123, ON SIDE CONNECTED TO D6.)
- 0-16 INSTALL C15 BY DRILLING TWO .042" HOLES AS SHOWN. TACK SOLDER BOTTOM LEAD OF COMPONENT TO ETCH LEADING TO Q12/BASE.(SIDE 2) TACK SOLDER REMAINING LEAD TO ETCH LEADING TO Q12/EMITTER.(SIDE 2)
- 0-17 INSTALL R81 AND C42 BY DRILLING FOUR .042" HOLES. TACK SOLDER TOP LEAD OF C42 TO ETCH RUN BETWEEN C1 AND R1.(SIDE 2) JUMPER BOTTOM OF C42 AND TOP R81 USING COMPONENT LEADS.(SIDE 2) TACK SOLDER BOTTOM LEAD OF R81 TO ETCH RUN BETWEEN Q2/COLLECTOR AND C2/POSITIVE.(SIDE 2)
- 0-19 INSTALL R82 BY TACK SOLDERING ONE SIDE TO ETCH RUN BETWEEN E4-8 AND D10/CATHODE. TACK SOLDER OTHER SIDE TO ETCH RUN BETWEEN R32 AND R26.

ECO #1

WIRE DELETE SIDE 1

- 1-1 FROM Q1/COLLECTOR TO R81.

COMPONENT DELETES SIDE 1

- 1-2 DELETE C8 DEC #100160-00.
- 1-3 DELETE C42 DEC #1013466-11.
- 1-4 DELETE R81 DEC #1300479-00.
- 1-5 DELETE R15 DEC #1317494-00.
- 1-6 DELETE R18 DEC #1316843-00.
- 1-7 DELETE C13 DEC #1002476-00.
- 1-8 DELETE R52 DEC #1300439-00.
- 1-9 DELETE C32 DEC #100160-00.
- 1-10 DELETE R32 DEC #1305353-00.
- 1-11 DELETE D31 DEC #1112595-02.

COMPONENT ADDS SIDE 1

- 1-12 ADD R15 DEC #1313342-00.
- 1-13 ADD R81 DEC #1301425-00.
- 1-14 ADD R32 DEC #1315096-00.
- 1-15 ADD R18 DEC #1313752-00.
- 1-16 ADD C13 DEC #1000026-00.
- 1-17 ADD R52 DEC #1300365-00.
- 1-18 ADD C32 DEC #1012783-00.
- 1-19 ADD D31 DEC #1115112-00.

REVISION HISTORY		
DATE	ECO NUMBER	REV.

TITLE H7211
COMMUNICATION REG.

DOCUMENT NUMBER		
SIZE	CODE	NUMBER
D	UA	5413867-0-0
SCALE 2/1		
SHEET 3 OF 3		

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A1 OF A4

LINE ITEM DOCUMENT NUMBER PART NUMBER DESCRIPTION QTY PER VARIATION 00 YA REFERENCE DESIGNATOR

1	D-MD-5013866-0-0	5013866-00	DRILL + ETCH BRD	1	0		
1	BLANK			1	0		
1001610-00			.01 MFD 50V +80-20% Z5U CER	2	2		C6, C18
1000026-00			680.0 MMF 100V 5%200PPM MICA	1	1		C13
1005784-00			.01 MFD 100V 200V 10% MYL	1	1		C33
1010274-02			1 MFD 50V +80-20% CER	3	3		C17, C23, C24
1011847-02			.01 MFD 600V 10% POLYPROP	1	1		C38
1011847-03			.0047 MFD 600V 10% POLYPROP	2	2		C36, C39
1012784-00			.047 MFD 50V +80-20% CER	2	2		C41, C9
1013466-04			33.0 MMF 50V 5% CER	1	1		C28
1013466-06			100.0 MMF 50V 5% CER	2	2		C21, C27
1013466-08			680.0 MMF 50V 10% X7R CER	2	2		C22, C15
1012783-00			.022 MFD 50V +80-20% CER	1	1		C32
1013466-12			2200.0 MMF 50V 10% X7R CER	1	1		C19, C34
1013466-11			.22 MFD 50V +80-20% Z5U CER	5	5		C3-C5, C29, C30
1014170-00			2700.0 MMF 100V 1% 70PPM MICA	1	1		C14
1015573-01			5600.0 MMF 50V 5% CER	2	2		C7, C16
1017472-00			10 MFD 35V +50-10% AL EL	3	3		C10-C12
1016992-00			2700 MFD 25V +75-10% AL EL	3	3		C31, C35, C37
1015202-03			.0013 MFD 1600V 10% POLYPROP	1	1		C40
1103441-00			IN 755A VZ= 8.2 5% 40W P	1	1		D9
1105275-00			D 672 TR= 15NS PIV= 60V SI	2	2		D1-D8, D10-D18, D20-D23
1112595-01			A114B PIV=200 I= 1A	9	9		D19, D24, D25, D27, D35-D39
1112595-02			A114M PIV=600 I= 1A	1	1		D30
1115112-00			PIV=800V I=1A	4	4		D28, D34, D40, D31
1117490-00			UES 1403 RECTIFIER 150V 8A T0220	2	2		D26, D29
9107252-00			TUBING SHRINK 3/8 DIA.EXP UL	A/R	A/R		
1213426-03			HEAT SINK TO-3 1" HIGH	1	1		
1214789-00			INSERT, THREADED 6-32, BRASS, ELEC	2	2		
1214809-02			INSERT, W/O INTERNAL THREADS, THRU	2	2		

REVISION HISTORY		BASIC PART NO: 5413867		DRN: J. FERGUSON		DATE: 5-AUG-80		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: J. FERGUSON		DATE: 21-OCT-80		TITLE PARTS LIST	
INITIAL		B	SECTION VARIATION INDEX	DES. ENG: D. DRINKWATER		DATE: 21-OCT-80		H7211 COMMUNICATIONS REG	
			(A) 00, YA	RESP. ENG.: C. LANDINO		DATE: 21-OCT-80		DOCUMENT NUMBER	
			(B)	MFG. ENG.: H. ORTIZ		DATE: 23-FEB-81		SIZE CODE NUMBER REV	
			(C)	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		K PL 5413867-J-DBP B	
			(D)	D-UA-5413867-0-0		B-DD-5413867-0-0		FILE NAME: 213098.PLS EDIT # 12	
			(E)						
			(F)						
			(G)						
			(H)						
			(I)						
			(J)						
			(K)						
			(L)						
			(M)						
			(N)						
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"									

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A2 OF A4

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QTY PER VARIATION
00 YA

REFERENCE DESIGNATOR

31	31	1215228-00	HEAT SINK TO-220, VERTICAL MNT	2	2	J3
32	32	1216122-11	HEADER. 156 4POS KEYED	1	1	J2
33	33	1217990-04	HEADER. 156 6SKT RCPT	1	1	J1
34	34	1217990-02	HEADER. 156 8SKT RCPT	1	1	
35	35	1213426-01	HEAT SINK TO-3	1	1	R81
36	36	1301425-00	300.0 .25 W 5.0 % CC	1	1	R65
37	37	1300171-00	10.0 1.0 W 5.0 % CC	4	4	R4, R47, R76, R60
38	38	1300229-00	100.0 .25 W 5.0 % CC	1	1	R72
39	39	1300287-00	270.0 1.0 W 10.0 % CC	1	1	R57, R64
40	40	1300315-00	470.0 .50 W 5.0 % CC	2	2	R20, R52
41	41	1300365-00	1.0 K .25 W 5.0 % CC	2	2	R25
42	42	1300391-00	1.50 K .25 W 5.0 % CC	2	2	R33, R45
43	43	1300398-00	1.80 K .25 W 5.0 % CC	1	1	R5
44	44	1300417-00	2.20 K .25 W 5.0 % CC	1	1	R38
45	45	1300426-00	2.70 K .25 W 5.0 % CC	0	0	
46	46	BLANK				
47	47	1300479-00	10.0 K .25 W 5.0 % CC	13	13	CONT R1, R3, R12, R19, R39, R40, R51, R53, R54, R56, R78, R80, R82
48	48	1301317-00	10.0 .25 W 5.0 % CC	1	1	R62
49	49	1301320-00	1.20 K .25 W 5.0 % CC	3	3	R6, R31
50	50	1301423-00	6.80 K .25 W 5.0 % CC	1	1	R50, R61, R79
51	51	1301890-00	560.0 .25 W 5.0 % CC	1	1	R21
52	52	1302377-00	39.0 .25 W 5.0 % CC	1	1	R63
53	53	1302394-00	30.0 K .25 W 5.0 % CC	1	1	R22
54	54	1302466-00	100.0 K .25 W 5.0 % CC	1	1	R43
55	55	1302855-00	5.76 K .25 W 1.0 % RN55D-F10	1	1	R14
56	56	1303114-00	1.0 K .25 W 1.0 % RN55D-F10	2	2	R9, R34
57	57	1303187-00	820.0 K .25 W 5.0 % CC	1	1	R28
58	58	1303305-00	6.98 K .25 W 1.0 % RN55D-F10	1	1	R44
59	59	1304806-00	150.0 3. .25 W 1.0 % WW	3	3	R66, R67, R69
60	60	1303311-00	46.40 K .25 W 1.0 % RN55D-F10	1	1	R27
61	61	1304858-00	348.0 .25 W 1.0 % RN55D-F10	1	1	R28
62	62	1304867-00	7.0 K .25 W 1.0 % RN55D-F10	1	1	R42
63	63	1304870-00	6.81 K .25 W 1.0 % RN55D-F10	1	1	R41
64	64	1305121-00	38.30 .25 W 1.0 % RN55D-F10	1	1	R55
65	65	1305124-00	287.0 .25 W 1.0 % RN55D-F10	1	1	R36
66	66	1305346-00	27.0 K .25 W 5.0 % CC	1	1	R2
67	67	1305621-00	111.10 .25 W 10.0 % RN55D-B10	2	2	R11, R48
68	68	1314350-00	1.0 2. .25 W 1.0 % FUSE	1	1	R77
69	69	1310632-00	2.37 K .25 W 1.0 % RN55D-F10	1	1	R43
70	70	1311522-00	200.0 .25 W 5.0 % CC	2	2	R17, R46
71	71	1312123-00	220.0 3. .25 W 1.0 % WW	1	1	R71
72	72	1312930-00	5.10 K .25 W 5.0 % CC	2	2	R7, R37
73	73	1312933-00	360.0 K .25 W 5.0 % CC	1	1	R30
74	74	1313153-00	28.0 K .25 W 5.0 % RN55D-F10	1	1	R10
75	75	1313580-00	360.0 .25 W 5.0 % CC	1	1	R59
76	76	1315096-00	1.87 K .25 W 1.0 % RN55D-F10	1	1	R32
77	77	1309413-00	3.83 K .25 W 1.0 % RN55D-F10	1	1	R24

D	I	G	I	T	A	L	TITLE	H7211 COMMUNICATIONS REG	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5413867-0-DBP	B

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A3 OF A4

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER	VARIATION	REFERENCE DESIGNATOR
					00	YA		
78	78		1314350-01	.220 2.0 W 5.0% FUSE	1	1		R73
79	79		1314397-00	9.53 K .25 W 1.0 % RN55D-F10	1	1		R16
80	80	BLANK			0	0		
81	81		1313342-00	18.70 K .25 W 1.0 % RN55D-F10	1	0		R15
82	82		1317522-00	1.0 .25 W 5.0 % CC	1	1		R70
83	83		1317515-00	.04 3.0 W 3.0 % WW	2	2		R13,R58
84	84		1318039-00	1.0 K 14.0 W 5.0 % WW	2	2		R74,R75
85	85		1302385-00	750.0 1.0 W 5.0 % CC	1	1		R68
86	86		1510705-00	XA .05 NPN 500MW SI 60 50 P	4	4		Q1,Q2,Q11,Q12
87	87		1510853-00	MJ 1000 NPN 90WC SI 60 1K Y	1	1		Q5
88	88		1512782-00	BUY69A NPN 100N SI125 15	1	1		Q14
89	89		1513489-00	2N 4401 NPN 350MW SI 40 20	2	2		Q7,Q10
90	90		1513490-00	2N 4403 PNP 350MW SI-40 30	2	2		Q8,Q9
91	91		1514271-01	D 4405 NPN 31W SI225 30	1	1		Q13
92	92		1117061-00	MCR 69-1 THYRISTOR	2	2		D41,D42
93	93		1617557-00	XFMR,CURRENT RATIO 1:2:100 PC MT	1	1		T3
94	94		1617440-00	XFMR,P=370V S=VARIABLE	1	1		T1
95	95		1617467-00	PULSE XFMR PC MOUNT	1	1		T2
96	96		1912107-00	324 OP AMP,QUAD	1	1		E4
97	97		1912108-00	339 VOLT CMPRTR,QUAD	1	1		E3
98	98		1916819-00	3527A MODULATOR,REGULATING	1	1		E1
99	99		1917059-00	3543 P.S. SUPERVISORY CIR	1	1		E2
100	100		9000024-09	EYELET,ROLL FLANGE .08900X .125	4	4		
101	101		9006010-01	SCREW,PAN,PHIL 4-40X 5/16 SS	2	2		
102	102		9007793-01	SCREW,PAN,PHIL 6-32X 9/16 SS	2	2		
103	103		9006556-00	NUT,HEX 4-40X1/4 AF X 3/	2	2		
104	104		9006656-00	WASHER, FLAT, .312 O.D. X .156 I	6	6		
105	105		9006688-00	WASHER, LOCK, S.S. #4	4	4		
106	106		9007801-00	WASHER, LOCK, S.S. #6	4	4		
107	107		9008268-00	COMPOUND, THERMAL JOINT	A/R	A/R		
108	108		9008957-00	NUT,HEX 6-32X 1/4 AF X 3	2	2		
109	109		9009769-00	WASHER, RECTANGULAR 405X.225X.0	2	2		
110	110		9009798-00	SPACER, CERAMIC, .186 00X.078 ID	4	4		
111	111	BLANK			0	0		
112	112		1312452-00	3.74 K .25 W 1.0 % RN55D-F10	1	1		R35
113	113		1305128-00	5.62 K .25 W 1.0 % RN55D-F10	0	2		R44,R41
114	114		1304863-00	316.0 .25 W 1.0 % RN55D-F10	0	1		R36
115	115		1313598-00	32.40 K .25 W 1.0 % RN55D-F10	0	1		R27
116	116		1313752-00	15.0 K .25 W 1.0 % RN55D-F10	1	1		R18
			CONT		-	-		R15
117	117		1304856-00	4.64 K .25 W 1.0 % RN55D-F10	0	1		R14
118	118		1305125-00	383.0 .25 W 1.0 % RN55D-F10	0	1		R8
119	119		1313597-00	23.70 K .25 W 1.0 % RN55D-F10	1	1		R26
120	120		1013466-22	.1 MFD 50V +80-20% Z5U CER	3	3		C1,C20,C25
121	121		1018000-02	22 MFD 35V +50-10% AL EL	1	1		C2
122	122		9105740-55	WIRE(WRAP)30AWG UL1423	A/R	A/R		
123	123		9107256-11	TUBING, THIN WALL, .027ID UL	A/R	A/R		

D	I	G	I	T	A	L	TITLE	H7211 COMMUNICATIONS REG	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5413867-0-DBP	B

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A4 OF A4

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

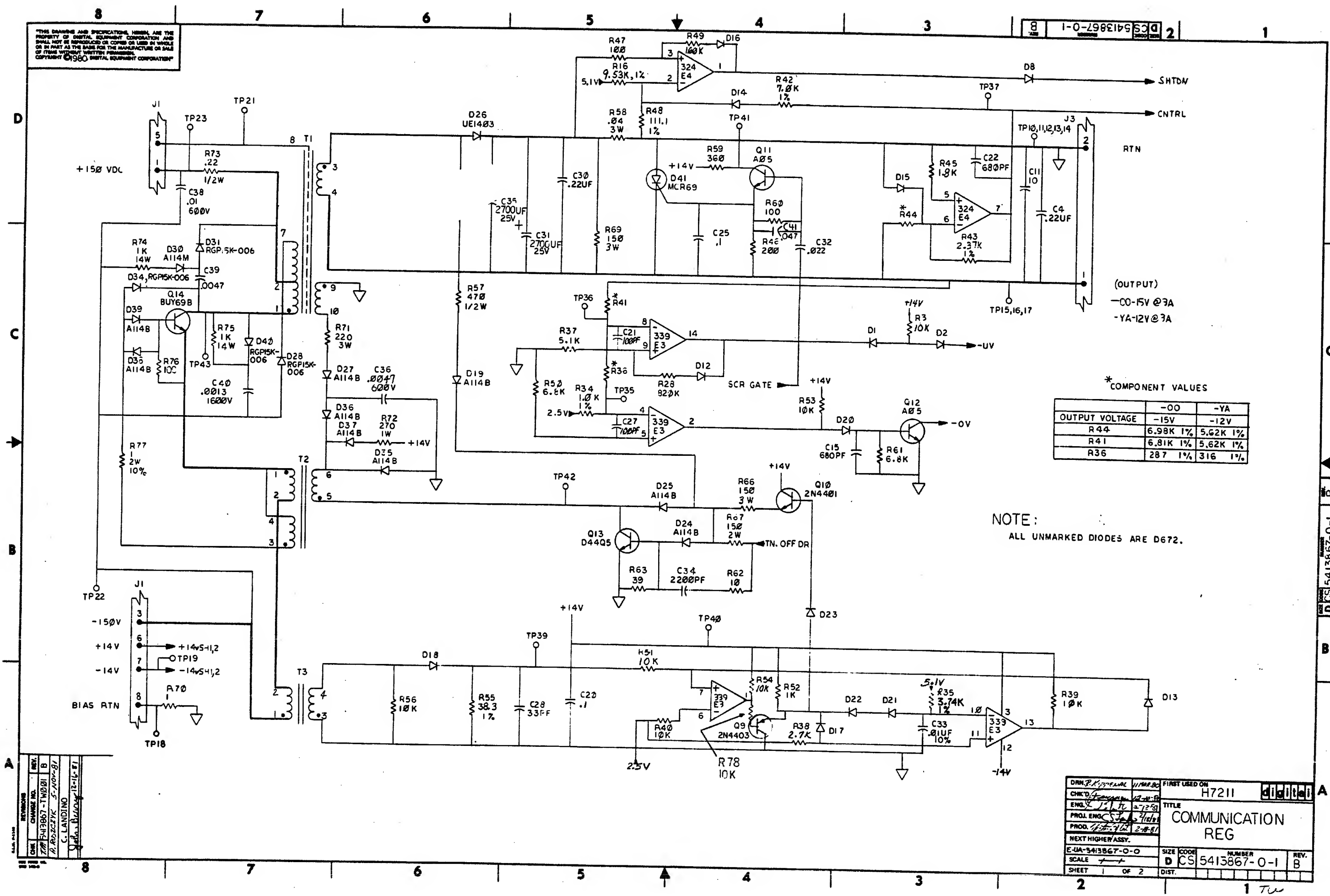
QTY PER VARIATION
00 YA

REFERENCE DESIGNATOR

124 NOTE: ITEM #122; .37' IS USED.
125 NOTE: ITEM #123; .13' IS USED.
126 NOTE: ITEM #27; .15' IS USED.

D I G I T A L						TITLE		H7211 COMMUNICATIONS REG		SECTION A OF A		SIZE	CODE	DOCUMENT NUMBER	REV
												K	PL	5413867-Q-DBP	B

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION



* COMPONENT VALUES

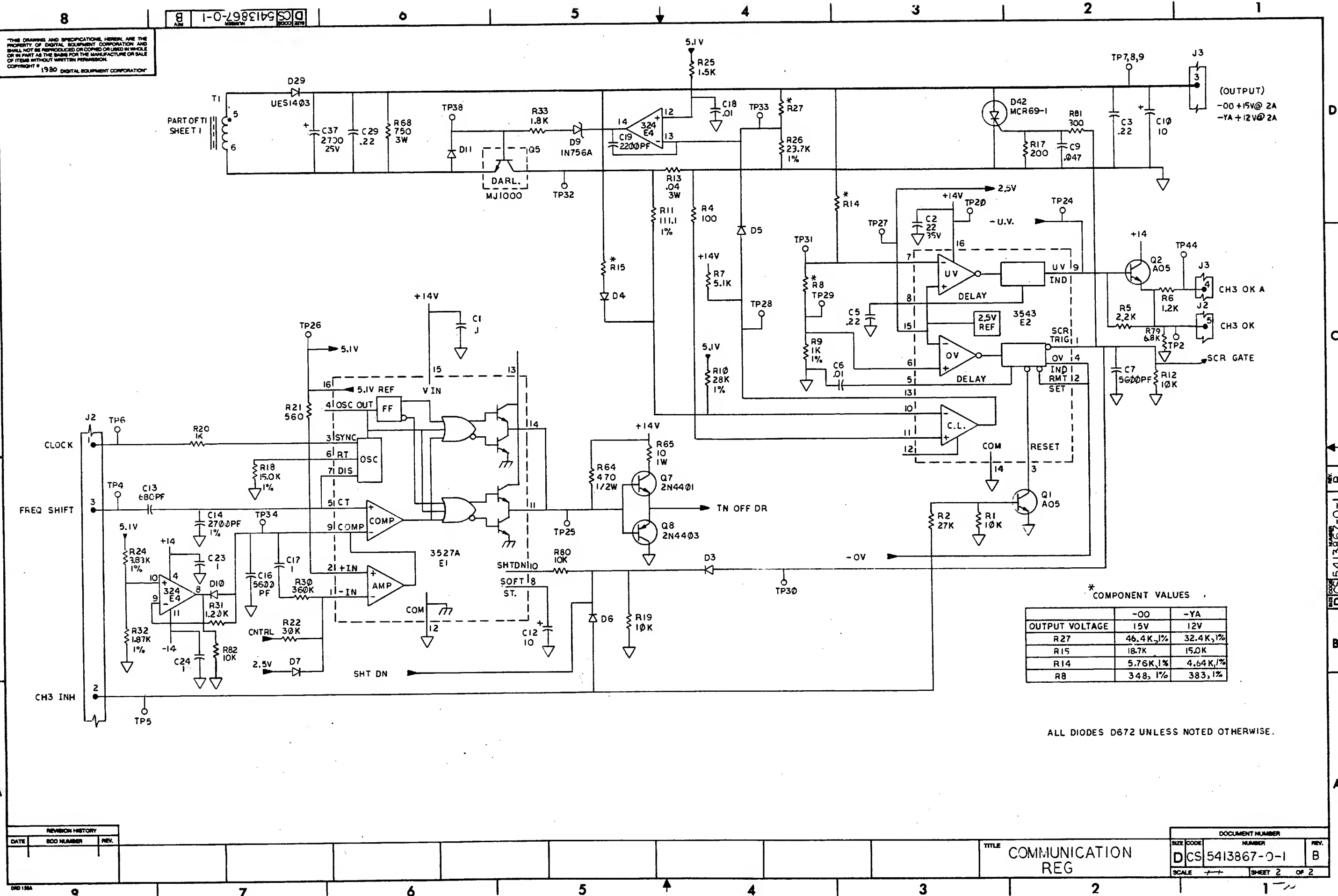
OUTPUT VOLTAGE	-00	-YA
R44	6.98K 1%	5.62K 1%
R41	6.81K 1%	5.62K 1%
R36	287 1%	316 1%

NOTE:
ALL UNMARKED DIODES ARE D672.

REV.	DATE	BY	CHKD.
1	5-10-81	G. LANDINO	
2	5-10-81		

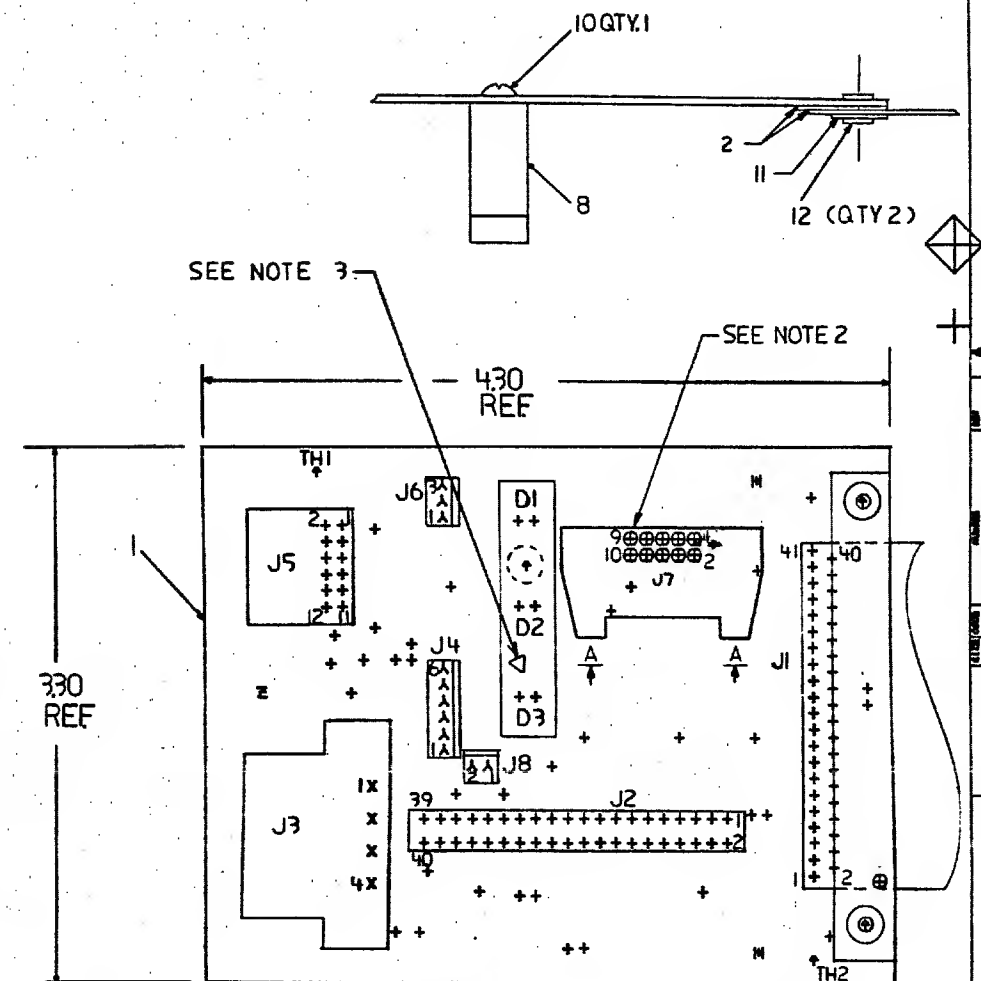
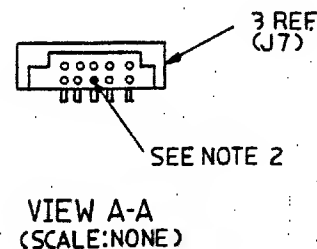
DRN. P. 11/11/80	11/11/80	FIRST USED ON	H7211
CHK'D. 11/11/80	11/11/80	TITLE	COMMUNICATION REG
ENG. 11/11/80	11/11/80	PROD. 11/11/80	
PROJ. ENG. 11/11/80	11/11/80	NEXT HIGHER ASSY.	
E-1A-5413867-0-0	SIZE	CODE	NUMBER
SCALE	D	CS	5413867-0-1
SHEET 1 OF 2	DIST.		

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
 COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION



THIS DRAWING AND SPECIFICATIONS, HEREIN, AND THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. DIGITAL EQUIPMENT CORPORATION
COPYRIGHT © 1981

COMPONENT SIDE VIEW



NOTES:

1. STEP & REPEAT 2ML80
2. BEFORE INSTALLATION CLIP PIN NO. 6 FLUSH TO .02 MAX HIGH
3. NOTE ORIENTATION OF ITEM 8 (HOLDER)

STEP 1	+ Y AXIS 3.30	STEP 2 TIMES
REPEAT	+ X AXIS 4.30	STEP 2 TIMES

CHK CHANGE NO	REV
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

ETCH REV.	B-P1
-----------	------

SIGNATURES	DATE
DRN. S. CORCORAN	1/1/81
CHK'D. P. B. B. B.	1-2-81
RECH. ENG. S. J. J.	5/2/81
PROJ. ENG. S. J. J.	5/2/81
PROD. H. M. M.	5/2/81
SCALE 2/1	DF 1
SHT. 1	OF 1
NEXT HIGHER REVISION	B-DD-5413877-0

TITLE	H7202
DISTRIBUTION BOARD	
SIZE CODE	0 UA 5413877-0-0
NUMBER	
REV	A

TW 1 W0#172359

AUTOMATED BY PRTLST.3P(44)

P A R T S L I S T

SHEET A1 OF A1

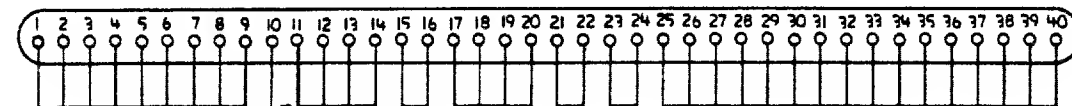
LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER VARIATION	REFERENCE DESIGNATOR
					00		

1	1	D-MD-S013876-0-0	S013876-00	DRILL AND ETCH BOARD	1		
2	2		1700213-00	CIRCUIT,FLEXIBLE DISTRIBUTION	1		
3	3		1209941-05	HEADER.100 10POS RT ANGLE	1		J7
4	4		1211004-01	SOCKET.100 40POS BOTTOM MOUNT	1		J2
5	5		1218243-02	HEADER.100 2PIN STRAIGHT	1		J8
6	6		1216112-04	HEADER.100 12POS DB SHROUDED	1		J5
7	7		1218027-00	HEADER 4PIN RT ANGLE	1		J3
8	8		1210940-02	LED HOLDER(3-DEC PART 11-10864)	1		
9	9		1110324-00	LED 1MCD310MA PIV=3	3		D1-D3
10	10		9010128-00	SCREW,TAPPING,TYPE PAN ,PHIL,	1		
11	11	C-MD-7425196-0-0	7425196-00	BRACKET STRAIN RELIEF	1		
12	12		9000024-01	EYELET,ROLL FLANGE .1210DX .192	2		
13	13		1218243-00	HEADER.100 3PIN STRAIGHT	1		J6
14	14		1218243-03	HEADER.100 6PIN STRAIGHT	1		J4

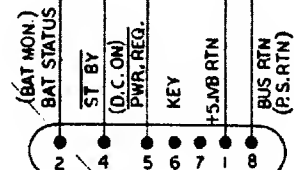
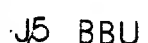
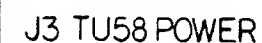
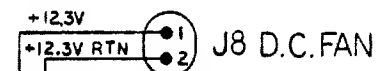
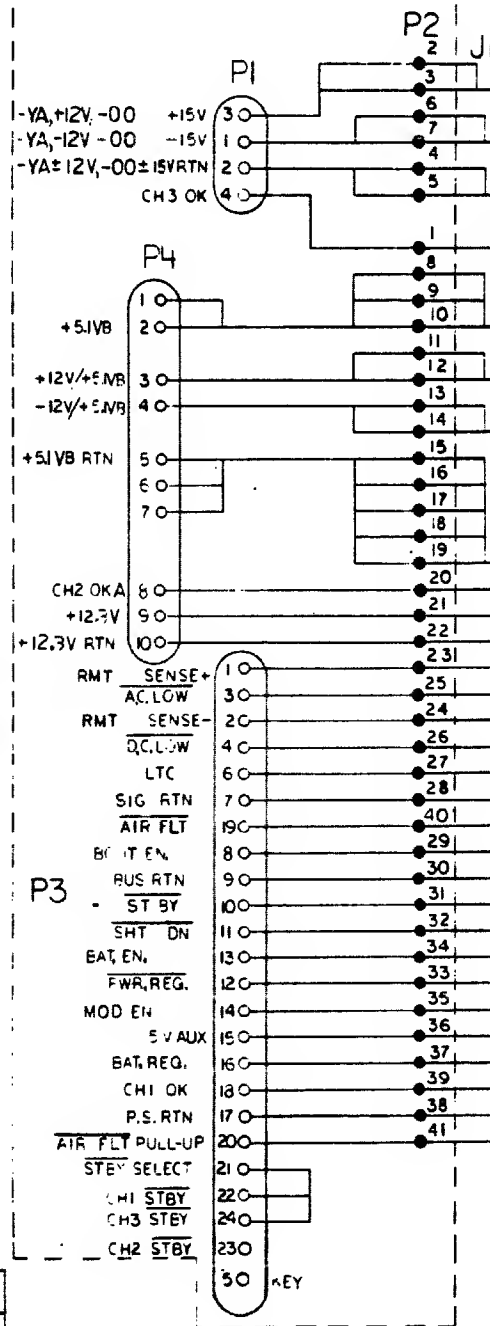
REVISION HISTORY		BASIC PART NO: 5413877		DRN: J.FERGUSON	DATE: 16-OCT-80	D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: J.FERGUSON	DATE: 16-OCT-80	TITLE		PARTS LIST	
---	INITIAL	A	SECTION VARIATION INDEX			H7202 DISTRIBUTION BOARD			
			[A] 00	DES.ENG: C.LANDINO		DATE: 12-10-80		DOCUMENT NUMBER	
			[B]	RESP.ENG.: C.LANDINO		DATE: 12-10-80		SIZE CODE NUMBER REV	
			[C]	MFG.ENG.: H.ORTIZ		DATE: 12-11-80		K	PL 5413877-0-DBP A
			[D]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
			[E]	D-UA-5413877-0-0		B-DD-5413877-0-0		Z1312.PLS 10	
			[F]	"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"					
			[G]						
			[H]						
			[I]						

BACKPLANE

J2



FLEXIBLE CIRCUIT
(1700213-00)



DRG. T. MCCULLOUGH	DATE 10-20-80	TITLE	digital
DATE 5/29/81	DATE 5/29/81	LEM, DISTRIBUTION	BD.
DATE 5/29/81	DATE 5/29/81	DOCUMENT NUMBER	DCS 5413877-0-1
DATE 5/29/81	DATE 5/29/81	SCALE 1/1	SHEET 1 OF 1

REVISION HISTORY	REV. A
DATE 5/29/81	BY DCS
DATE 5/29/81	BY DCS
DATE 5/29/81	BY DCS
DATE 5/29/81	BY DCS

DIGITAL EQUIPMENT CORPORATION

H7202B POWER SUPPLY ENGINEERING
THIS DRAWING AND SPECIFICATION, HEREIN, ARE THE PROPERTY
OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE
REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE
BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN
PERMISSION

COPYRIGHT C 1981 DIGITAL EQUIPMENT CORPORATION

REV	DESCRIPTION	CHG NO	ORIG	DATE	APPD BY

ENG	APPD	DATE	SIZE	CODE NUMBER	REV	TW
C.S. LANDINO	CS Landino	6/24/81	A	SP H7202-B-0	A	

SHEET 1 OF 39

DIGITAL EQUIPMENT CORPORATION

TABLE OF CONTENTS

Chapter 1	SCOPE
1.1	GENERAL DESCRIPTION
1.2	REFERENCE DOCUMENTS
Chapter 2	ELECTRICAL SPECIFICATION
2.1	INPUTS SPECS
2.1.1	Line Voltage
2.1.2	Line Frequency
2.1.3	Line Current
2.1.4	Power Factor
2.1.5	Inrush Current
2.1.6	Overload Protection
2.1.7	Insulation (Hi-Pot)
2.1.8	Input Power
2.1.9	Grounding
2.1.10	Ride-through Capability
2.1.11	Efficiency
2.1.12	Input Over/Under Voltage Conditions
2.1.13	Input Line Noise Susceptibility
2.2	OUTPUT SPECIFICATIONS
2.2.1	Output Voltages
2.2.2	Output Current
2.2.3	Wattage
2.2.4	Line/Load Regulation
2.2.5	Noise
2.2.6	Ripple
2.2.7	Dynamic Response Time
2.2.8	Temperature Coefficient
2.2.9	Short-term Stability
2.2.10	Long-term Stability
2.2.11	Output Overload Protection
2.2.12	Overvoltage Protection
2.2.13	Output Adjustment
2.2.14	Output Sequencing
2.2.15	Voltage Margins
2.3	DC INPUT (BBU)

SIZE	CODE NUMBER	REV	TW
A	SP H7202-B-0	A	

SHEET 2 of 39

DIGITAL EQUIPMENT CORPORATION

Chapter 3	ELECTROMAGNETIC INTERFACE
3.1	LIMITS OF EQUIPMENT GENERATED INTERFACE
Chapter 4	APPLICATION SPECIFICATIONS
4.1	INPUT - VOLTAGE, CURRENT AND CORD REQUIREMENTS
4.2	OUTPUT - VOLTAGE, CURRENT AND CORD REQUIREMENTS
4.3	LOAD DUTY CYCLE
4.4	PARALLELING REQUIREMENTS
4.5	LOAD CAPACITANCE
4.6	LOAD CONNECTION CHARACTERISTICS
4.7	REMOTE SENSE
4.8	BBU REQUIREMENTS
4.9	RETURN WIRE VOLTAGE OFFSETS
Chapter 5	LOGIC SIGNALS SPECIFICATION
5.1	OUTPUT SIGNALS
5.1.1	DC LOW
5.1.2	AC LOW
5.1.3	LINE CLOCK
5.1.4	BATTERY BACK-UP ENABLE
5.1.5	BATTERY BACK-UP REQUEST
5.1.6	BOOT ENABLE
5.2	INPUT SIGNALS
5.2.1	DEC POWER BUS
5.2.2	STANDBY
5.2.3	MODULE ENABLE
5.2.4	AIR FAULT
5.3	POWER-UP/POWER-DOWN PROTOCOL
5.4	STATUS INDICATORS
Chapter 6	MECHANICAL AND PHYSICAL SPECIFICATIONS
6.1	SIZE
6.2	WEIGHT
6.3	MOUNTING
6.4	COOLING
6.5	THERMAL PROTECTION
6.6	ACCESSIBILITY
6.7	IDENTIFICATION STICKERS
6.8	INPUT/OUTPUT CONNECTORS
6.9	PACKAGING

SIZE	CODE NUMBER	REV	TW
A	SP H7202-B-0	A	

SHEET 3 of 39

DIGITAL EQUIPMENT CORPORATION

Chapter 7	ENVIRONMENTAL SPECIFICATIONS
7.1	TEMPERATURE
7.2	HUMIDITY
7.3	ALTITUDE
7.4	VIBRATION
7.5	SHOCK
7.6	DIRT PROTECTION
Chapter 8	RELIABILITY
8.1	LIFE EXPECTANCY
8.2	MEAN TIME BETWEEN FAILURES
Chapter 9	SAFETY
9.1	ELECTRICAL
9.2	REGULATORY BODIES
9.3	ISOLATION
9.4	GROUNDING

The information in this specification is subject of change without notice and should not be construed as final. No responsibility is assumed for any errors that may appear in this specification.

SIZE	CODE NUMBER	REV	TW
A	SP H7202-B-0	A	

SHEET 4 of 39

CHAPTER 1
SCOPE

1.1 General Description - H7200 Series Power Supplies

This specification covers an off-line, high frequency switching power supply with a regulated 5 volt main output at 0 to 60 amps, memory and communications outputs up to 400W total for all. It consists of a motherboard with supporting chassis and input-output connections. Size is approximately 15 x 50 cm. and 12 cm. high; weight is approximately 8 kilograms. Input power is 90-132 or 180-264 (internal select switch) at 48-63 Hz.

Outputs are divided into three groups: Main output (Channel 1): 5.1V main; Memory outputs (Channel 2): +5V at 15A for MOS memory, and DC Fan/TU58 power; Com Outputs (Channel 3): $\pm 15V$.

All outputs except fan/TU58 +12V feature overvoltage and overcurrent protection and are regulated independently of one another. Battery backup and AC standby are operable for the memory power channel (CH2).

Additionally, AC low and DC low signals are provided as well as AC line clock and boot enable. This power supply will be UL recognized, CSA certified and comply with DEC-STD-119 Rev B.

1.2 Reference Documents

- DEC Standard 023 - Circuit Schematics
- DEC Standard 60 - Policy Relating to Nationally and Internationally Recognized Laboratories.
- DEC Standard 102 - Section 7 - EMI
- DEC Standard 102 - Environmental Standards
- DEC Standard 116 - Workmanship Standards
- DEC Standard 119 - Product Safety
- DEC Standard 120 - Cooling Standards
- DEC Standard 122 - AC Power Line Standard
- DEC Standard 123 - Power Control Bus Standard
- DEC Standard 139 - Reliability Prediction
- DEC Standard 158 - Unibus

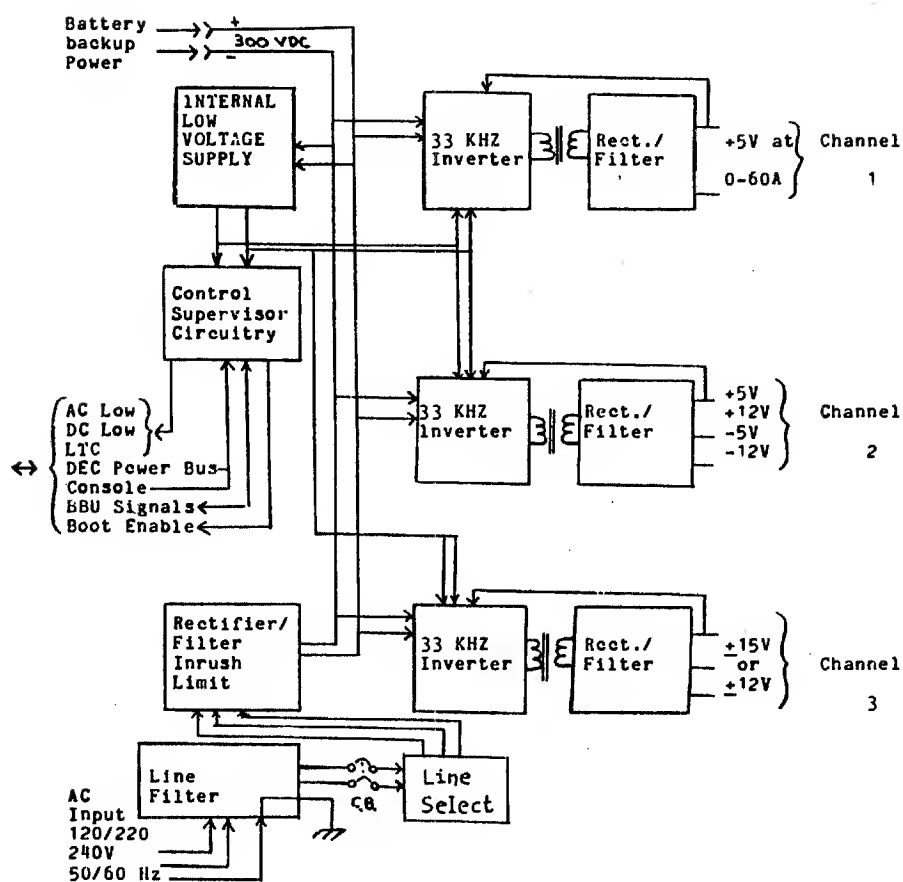
Engineering Print Set

- DEC Standard 002 - AC Power Wiring, Grounding, Receptacles and Nameplates
- DEC Standard 030 - Module Manufacturing Specification

SIZE CODE NUMBER
A SP H7202-B-0
REV
A TW
SHEET 5 of 39

FIGURE 1

FUNCTIONAL BLOCK DIAGRAM FOR H7200 SERIES POWER SUPPLIES



SIZE CODE NUMBER
A SP H7202-B-0
REV
A TW
SHEET 6 of 39

CHAPTER 2
ELECTRICAL SPECIFICATIONS (H7202B)

2.1 Input Specifications - AC Line

Note: Selection of low range or high range is accomplished through a tool operated slide switch located adjacent to the circuit breaker. A clear cover is also used to discourage casual operation.

2.1.1 Line Voltage

Note: Line impedance must be sufficiently low to assure less than 5% total harmonic distortion of the line AC waveform.

Low Range: (120V nominal) 90-132 (rms) single phase three wire.

High Range: (240V nominal) 180-264 (rms) single phase three wire.

2.1.2 Line Frequency

47-63 Hz for either voltage range.

2.1.3 Line Current

Peak and RMS currents vary proportionally with line voltage.

Low Voltage Range: 8.5 amperes (rms) max. and 25 amperes (peak) max. at a nominal 120 VRMS line.

High Voltage Range: 4.2 amperes (rms) max. and 12 amperes (peak) max. at a nominal 240 VRMS line.

2.1.4 Power Factor

The ratio of real power to apparent power shall be greater than 0.60 at full output load and nominal input voltage.

2.1.5 Inrush Current

At first application of input voltage to the power supply, the stated surge current may be reached for 1/2 cycle of the input line. Following that, there will be repetitive peaks of lower amplitude for up to 10 more cycles of the line.

Maximums: Low Voltage Range: 120 A (Peak)
High Voltage Range: 120 A (Peak)

SIZE CODE NUMBER
A SP H7202-B-0
REV
A TW
SHEET 7 of 39

2.1.6 Input Overload Protection

A two pole circuit breaker is provided to protect the input wire and components. This breaker is accessible and is a 15 Amp rating for both 120V and 240V settings.

2.1.7 Insulation/HI-Pot

2.1.7.1 2120 V dc and 300 VAC, (rms) 50 Hz between input and frame and shields for 1 minute as specified in DEC-STD-119 Rev C, section 2, paragraph 2.

2.1.7.2 2500 VAC (rms) 50 Hz between input and output for 1 minute. In accordance with DEC-STD-119 Rev C. This excludes the line filter.

2.1.7.3 All isolation transformers shall have been high potential tested prior to assembly into a module or assembly. Devices without shields will have been tested to reinforced insulation levels (3750 VAC).

2.1.8 Input Power

The average input power shall be 650 watts max. with the outputs loaded to a total of 400 watts.

2.1.9 Grounding

The green/yellow bonding ground wire is connected to the metal case and to transformer shields. It is internally connected to the main 5V return.

2.1.10 Ride-Through Capability

All outputs are maintained within stated regulation limits for a minimum of 6 milliseconds after input power interruption at low line (either voltage range). AC low may be asserted at the interruption; DC Low will follow a minimum of 5 milliseconds after AC Low. (See power-down protocol Section 5.3.) The delay from power interruption to AC low increases with higher line voltage (either range) and lighter loads.

SIZE CODE NUMBER
A SP H7202-B-0
REV
A TW
SHEET 8 of 39

2.1.11 Efficiency

The ratio of output DC power at the power supply terminals to the input real power shall be 0.65 minimum taken at 5V/60A in either input voltage range. This ratio may degrade to .60 when other outputs are loaded.

2.1.12 Input Over/Under Voltage Conditions

Undervoltage: The power supply is capable of withstanding any undervoltage condition for any duration without damage or degradation.

Overvoltage: The power supply is capable of withstanding an input overvoltage of 150 VAC (RMS (low voltage range)) or 300 VAC (RMS) (high voltage range) for one second maximum without sustaining any internal damage or degradation. The outputs are protected from overvoltage (within crowbar range) under these conditions. Overvoltage in excess of this may be damaging to the power supply.

2.1.13 Input Line Noise Susceptibility**2.1.13.1 Transients**

Note: A spike is defined as a voltage transient, of either polarity and of either common or differential mode, with a rise time (10% to 90%) of 0.1 micro-seconds or less and a fall time (to 10%) of 10 micro-seconds or more. The average power of spikes shall not exceed 0.5 watts. They may occur at any phase value of the input AC, adding to the instantaneous value.

2.1.13.1.1 Low Energy Transients

In accordance with DEC-STD-102.7 Rev C.

2.1.13.1.2 High Energy Transients

In accordance with DEC-STD 102.7 Rev C.

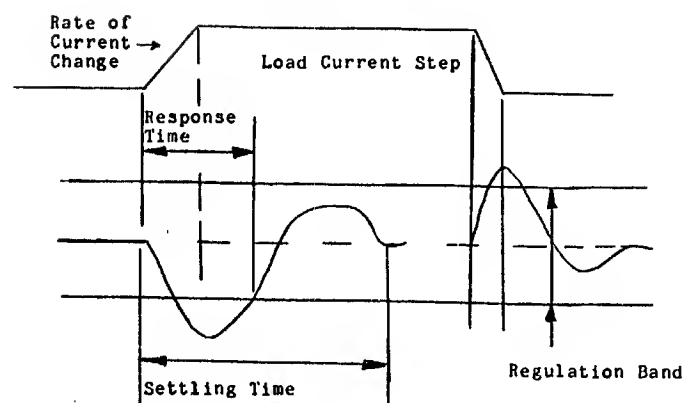
2.1.13.2 Conducted Noise

In accordance with DEC-STD-102.7 Rev C.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 9 of 39

FIGURE 2.1 DYNAMIC RESPONSE TIME

**2.1.13.2 Radiated Noise**

In accordance with DEC-STD-102.7 Rev C.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 10 of 39

2.2 Output Specifications

This power supply has a fixed 5.1V output on the major board with remote sense capability. Other outputs are provided from the regulator cards. These outputs are regulated at the card. (See Table I.)

2.2.1 Output Voltages (Table 1)

For all outputs, The "Total Tolerance" is the root-sum-squared of errors due to:

Initial Tolerance
Dynamic Voltage Limits
Line/Load Changes Over Specified Range
Long Term Stability (1000 hours)
Temperature Drift
Ripple

The "Total Static Tolerance" is the root-sum-squared of errors due to:

Initial Tolerance
Line/Load Changes Over Specified Range
Long Term Stability (1000 hours)
Temperature Drift

2.2.2 Output Current (Table 1)

The minimum and maximum currents for each output are specified in Table 1. Where minimum loads are given, it indicates a minimum loading level necessary to keep other outputs within that channel grouping within regulation.

2.2.3 Wattage

The maximum wattage from each output is the product of the max rated current and the sum of the rated voltage and the total tolerance. The maximum power obtainable from combining all output powers in any application must be limited to 400 watts.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 11 of 39

2.2.4 Line/Load Regulation

Table 1 shows the maximum deviation of each output for gradual line and load changes. The line voltage range for this parameter is the full range specified in 2.1.1. The load current variation is from minimum load to maximum rated load as specified in Table I. Gradual change is defined for this purpose as covering the range in more than one second.

2.2.5 Noise

Table 1 shows the maximum peak to peak noise which is present on each output. Noise must be measured at the output terminals of the power supply. The noise voltage is superimposed on the ripple voltage. Noise is defined as repetitive disturbances at a frequency greater than 170 KHZ.

2.2.6 Ripple

Table 1 shows the maximum peak-to-peak ripple voltage present on each output at the specified measurement points. The output deviations classified as ripple are repetitive disturbances in the frequency range of 1 Hz to 170 KHZ.

2.2.7 Dynamic Response Time

Table 1 shows the dynamic response characteristics of each output channel. The load current change, the allowable overshoot/undershoot, the response time and the settling time are specified for each channel. Each channel is to be subjected to a maximum rate of load current change of 0.5 Amperes per microsecond (increasing or decreasing load). The load changes are to occur as a 50% duty cycle square wave at a frequency of 100 hertz max; within the min/max values specified in Table 1. Figure 2.1 shows a typical output wave form and defines all the above mentioned terms.

2.2.8 Temperature Coefficient

The maximum temperature coefficient of each output of this supply is +0.02%/°C maximum over the operating ambient temperature range specified in 7.1.1. The measurement of temperature coefficient is to be made at 50% load on all outputs, nominal line voltage and after ten minute warm-up period with proper cooling air flowing.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 12 of 39

DIGITAL EQUIPMENT CORPORATION

2.2.9 Short Term Stability

The changes in the voltage at each output during warm-up after the initial turn-on will be less than 0.2% of the output measured. This measurement is made from one second after the supply is turned on until component temperature stability is reached (no later than one hour after turn on). All other parameters and environmental conditions must remain constant during this test.

2.2.10 Long Term Stability

The long term stability of each output of the supply is 0.1%/1000 hours maximum when measured under constant line, load and environmental conditions. The conditions must be within the limits called out in this specification.

2.2.11 Output Overload Protection

Table I shows the type of current limiting scheme and initiating point (limits) for each output.

The description of each type is below:

Pulsing	In this mode, the output is turned off for some fixed period of time after the initiation point is reached. Upon reactivation of the output, the output current builds; then, if the initiation point is reached again, the output turns off again. The average current in this mode is low, but with higher peaks.
Constant Current	At the initiation point, the output current is held constant and the voltage dropped to a level sufficient to maintain the fixed current level.
Foldback	In this mode, once the initiation point is reached, the voltage is lowered and the output current level also lowered. At a short circuit, the current is approximately 40% - 60% of the initiation point current.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 13 of 39

DIGITAL EQUIPMENT CORPORATION

The current limit on all outputs is configured such that the output will automatically recover to normal operation upon the removal of the overload.

All outputs are capable of operating for indefinite periods of time with short circuits on the output without causing damage or degradation to any portion or component of the supply.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 14 of 39

DIGITAL EQUIPMENT CORPORATION

TABLE I

UNITS

Output Designator		#1	#2	#3
Power Channel		1	2	2
Nominal Voltage	V.dc	+5.1	+12.3	+5.1
Rated Current (Max)	A.dc	60	3.0(Note 2)	15.0
Minimum Current	A.dc	0	0.8(Note 3)	2.0
			(Note 1)	
Total Tolerance	+mV.dc	230	1000	300
Total Static Tolerance	+mV.dc	150	850	275
Initial Tolerance	+mV.do	100	500	100
Static Line/Load Regulation	+mV.dc	100	675	250
Ripple Voltage	mV (p-p)	100	200	75
Noise Voltage	mV (rms)	50	100	50
Dynamic Regulation	(Figure 2)			
I	A	5	0.6	3.0
Over/Undershoot (max)	mV	150	500	100
Response Time (max)	ms	1.0	10	1.0
Settling Time	ms	1.5	15	1.5
Current Limit Type	--	Pulsing	Pulsing	Pulsing
Initiation Point(min/max)	A.dc	65-75	3-3.5	16.0/22.0
Short Ckt Current (max)	A (RMS)	5	2.0	8.0
	A dc	---		
Overvoltage Trip Pt.	V dcmax/min	+6.5	+14.5/15.5	+5.4/6.0
Maximum Voltage	V dc	+7.0		6.5

Note 1: The minimum load specified for the +5.1V output is required to maintain reg. on the +12.3V output. The 5.1V output will operate at no load but the +12.3V output will be below spec.

Note 2: Max continuous output current for +12.3V output is 3.0 amps. Intermittent currents of up to 6.0 amps may be drawn for several seconds if the duty cycle is kept below 2%. If continuous currents of greater than 3.0 amps are drawn a thermal protection switch will shut the supply down.

Note 3: The minimum load specified for the +12.3V output is required to maintain regulation. If the minimum load is below that specified the +12.3V output can be out of regulation on the high side. If the load falls below 0.75A the 12.3V output can rise sufficiently to cause an overvoltage condition and the module will shut down. See A-SP-H7213, paragraph 2.2.13.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 15 of 39

DIGITAL EQUIPMENT CORPORATION

TABLE I (Cont'd)

Units

High Range

Output Designator		#4	#5
Power Channel		3	3
Nominal Voltage	V.dc	+15.0	-15.0
Rated Current (max)	A.dc	2.0	3.0
Minimum Current	A.dc	0	0.3
Total Tolerance	+mV.dc	580	700
Total Static Tolerance	+mV.dc	500	630
Initial Tolerance	+mV.dc	450	550
Static Line/Load Regulation	+mV.dc	175	275
Ripple Voltage	mV (p-p)	200	300
Noise Voltage	mV (rms)	150	150
Dynamic Regulation: (Figure 2.1)			
Current Step	A	.2	.3
Under/Overshoot (max)	mV	200	50
Response Time	ms	0.5	0.25
Settling Time	ms	0.5	0.25
Current Limit Type	--	Foldback	Foldback
Initiation Point	A.dc	2.1-3.0	3.1-4.0
Short Ckt Current (max)	A (RMS)	---	---
	A dc	0.5	1.5
Overvoltage Trip Point min/max	V dc (max)	+17.0/19.1	-16.7/18.8
Maximum Voltage	V dc	+21.0	-21.0

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 16 of 39

2.2.12 Overvoltage Protection

All outputs except designator 2, table 1, have a crowbar protective device to prevent the voltage from exceeding the maximum fault voltage level indicated in Table 1. The crowbars will be capable of discharging all internal and rated external capacitances. The maximum response time of the protection is 2 microseconds. The maximum voltage is not exceeded during the response time.

All overvoltage fault circuits (crowbars) are latching. The latched-off condition can be reset by removal of AC power for at least one minute or by removal of Power Request and Standby signals (console switch to "off").

2.2.13 Output Adjustment

All outputs are fixed with no means of adjustment. Channel 3 outputs are available for +15V or +12V. This selection is by choosing a variation of the module.

2.2.14 Output Sequencing

None.

2.2.15 Voltage Margins

There are no margin circuits or capability provided.

SIZE	CODE	NUMBER	REV	
A	SP	H7202-B-0	A	TW

SHEET 17 of 39

2.3 D. C. Input - Battery Backup Power

P1 is the inlet connector for Battery Backup Power. It is common with the bulk DC on the major board which is derived from line rectification. It is not isolated from the AC line. Proper cable mounting, shielding and insulation must be exercised when using this input to avoid circumventing the AC line filter and preserve signal integrity in adjacent cables. In systems that are high potential tested, this input is raised to the high voltage.

Note: This input is in common with the internal bulk DC voltage. There is no fusing or limiting provided. High surge and average currents are therefore possible from this interface, as with any 240V line connection.

There is internally stored energy available at this connection for several seconds after power removal following some internal failures. These two terminals must not be short-circuited together or to ground to discharge this energy.

This input is to be used only with isolated RBU units such as the H7240 series battery converters.

SIZE	CODE	NUMBER	REV	
A	SP	H7202-B-0	A	TW

SHEET 18 of 39

CHAPTER 3
ELECTROMAGNETIC INTERFERENCE
3.1 Limits of Equipment Generated Interference

AC Power Lines
Compliance with FCC A and VDE A limit is provided by the line filter within this power supply.

SIZE	CODE	NUMBER	REV	
A	SP	H7202-B-0	A	TW

SHEET 19 of 39

CHAPTER 4
APPLICATION SPECIFICATIONS
4.1 Input - Voltage Current and Cord Requirements

The input voltage range is selected with a screwdriver operated slide switch on the unit. The inlet connector is a three pin (IEC) connector. A 14 gauge three wire cord is required. This cord is not supplied with the power supply. Removal of a small protective cover is required for operation of the line select switch.

4.2 Output Voltage, Current and Harness Requirements

The main 5 volt output is available at the connection blocks on the unit. A suitable bus bar or sufficient size wire is required to conduct the current used by the load and restrict the voltage drop to 100 mV between output terminals and remote voltage sense points for each lead, supply and return. Other voltages are available at the backplane connector on the distribution board (see D-IC-H7202). Voltage drops for these are determined by user requirements.

4.3 Load Duty Cycle

The power supply will operate within all specification limits continuously with any outputs loaded to full rated current, provided total DC output power does not exceed 400W.

4.4 Paralleling Requirements

Operation of this supply connected in parallel with any other power supply is not permissible.

4.5 Load Capacitance

The maximum external capacitance added in parallel at the load (for decoupling, etc.) for each output is:

+5V	:	500 uf	+15V	:	270 uf
+12V	:	100 uf	-15V	:	270 uf
+5VB	:	500 uf			

These limits are necessary to insure system stability.

SIZE	CODE	NUMBER	REV	
A	SP	H7202-B-0	A	TW

SHEET 20 of 39

4.6 Load Connection Characteristics

The interconnection circuit from the output to the remote sense attachment points is restricted in inductance and capacitance to assure system stability as follows:

maximum inductance (Normal mode)	50	Microhenries
maximum capacitance	500	Picofarads
maximum LC product	250×10^{-12}	FARAD-HENRIES

4.7 Remote Sense

The main 5V output has remote sense capability. The maximum sense line length is one meter (each line). A capacitor of 0.1 μ F is required at the sense line termination at the load. The sense lines are pin 6 (+) and 8 (-) in connector J2. The power supply output is protected from opening or shorting the sense lines. Crowbar is considered adequate protection for this purpose. Regulation limits are not guaranteed if the sense line resistance from the sense pins to the 5V output exceeds 0.5ohm (each line). In the event of an open sense line, regulation takes place at output assembly on the H7200 power module.

4.8 Battery Back-Up Requirements

This power supply is capable of operating from a battery back-up with a 200V output interfacing with the primary bus, such as the H7240 series units. The power supply is capable of operation in this mode for 30 seconds maximum at rated load and temperature without forced air cooling. External forced air is required for operation for longer periods in this mode.

This unit is internally programmed to back up Channel 2 outputs (memory regulator). These are also the "standby" outputs (See Table I and 5.2.2).

4.9 Return Wire Voltage Offsets

The return lines for each power channel must be connected together externally for normal, safe operation. This is normally done at the load. In such cases, the difference in return wire voltage drops due to distribution losses must be less than 350 mV for any combination of two of the three power channels. This is necessary to prevent shortening the life of the internal ground isolation resistors between the power channel control circuits.

SIZE	CODE	NUMBER	REV	
A	SP	H7202-B-0	A	TW

SHEET 21 of 39

CHAPTER 5
SIGNAL SPECIFICATIONS5.1 Output Signals5.1.1 DC Low

This signal when asserted (low state) indicates that the dc voltage at the input bus is not adequate to maintain regulation of the outputs, and that output OC power is about to drop. All outputs will remain in regulation for 1 millisecond minimum after this signal is asserted.

The output signal is provided on two lines leading to an ungrounded (floating) FET. On power turn-on this signal is asserted until regulation is reached.

Electrical Characteristics:

Asserted (low) - Capable of sinking 50 mA. at 0.4Vmax.

Un-asserted (high) - Output impedance of 100 K ohms min, 15V maximum applied voltage.

5.1.2 AC Low

This signal when asserted (low state) indicates that the dc voltage at the input bus is at or near the value necessary to guarantee the 5 mS. hold-up prior to DC low. This value is below the specified line voltage but above the minimum required for regulation. When un-asserted (high) this signal indicates adequate input voltage.

On power turn-on this signal is asserted until after DC low is de-asserted. On power turn-off this signal is asserted 5 milli-seconds minimum prior to DC low (See Figure 5.2, 5.3).

Electrical characteristics are the same as OC low (see 5.1.1). The return lead (FET source) is common with DC low.

SIZE	CODE	NUMBER	REV	
A	SP	H7202-B-0	A	TW

SHEET 22 of 39

5.1.3 Line Clock Signal

This signal is a timing reference at the frequency of and synchronous with the AC line. Its waveform is a square wave of approximately 50% duty cycle. Its source is an open-collector transistor sinking 20 mA. with 0.4V maximum in the low state and high impedance in the high state. High state maximum applied voltage is 15V, minimum impedance is 100 K ohms. The return lead is common with DC low (See Figure 5.1).

Note: This signal does not function when power is derived from battery back-up.

5.1.4 Battery Back-Up Enable

This signal when true (high state) asserts that a valid BBU condition exists in the power supply. This enables the BBU unit to assume the "ready" state which permits fast response to a power fail condition through the BBU request signal (para. 5.1.5).

When false, a non valid condition is indicated such as thermal shutdown or output failure. This allows the BBU unit to assume the "Off" state which does not allow fast response and permits minimum battery drain. A transition from True to False while BBU unit is supplying power, terminates the backup condition, removing power.

Electrical Characteristics:

True (high state): A voltage source of +12V (10.5 min, +14.5 max) at 10 mA. max current.

False (low state): High impedance source of greater than 100 K-ohms to +14.5V maximum.

5.1.5 Battery Back-Up Request

This is a momentary indication of a drop in the bulk OC power input to the power stages indicating input AC has dropped. This signal is asserted simultaneously with AC low but is de-asserted when the bulk DC is increased due to the input of battery derived power (See figure 5.4). The minimum assertion time is greater than 1 millisecond.

Electrical Characteristics are the same as Battery Back-up Enable (para. 5.1.4).

SIZE	CODE	NUMBER	REV	
A	SP	H7202-B-0	A	TW

SHEET 23 of 39

5.1.6 Boot Enable

This signal is valid on power up between de-assertion of DC low and AC low. When true (high state) it indicates that memory voltage(s) had been good and uninterrupted since assertion of DC low on power down. When false (low state) it indicates that memory voltages had been interrupted. Electrical characteristics are the same as OC low.

SIZE	CODE	NUMBER	REV	
A	SP	H7202-B-0	A	TW

SHEET 24 of 39

5.2 Input Signals

5.2.1 DEC Power Bus

The power supply responds to these two signals (Power Request and Total Shutdown) in accordance with DEC STD 123.

Power Request: All outputs are inhibited until this signal is pulled low externally, except for the Standby mode.

Total Shutdown: All outputs are inhibited whenever this signal is pulled low externally. This signal overrides all other signals.

Normal output signal and power output sequencing per section 5.3 occurs when these signals are used.

5.2.2 Standby (Console Signal)

This input enables the "Standby" outputs when pulled low externally. It overrides Power Request but not Total Shutdown. "Standby" is internally programmed to be the "Channel 2" outputs (memory regulator) (See Table I).

Low State (asserted): Less than 1.0V
Source Current is -1.0 mA. max.

High State (unasserted): Greater than 10V,
Sink current: 1 uA. max.

5.2.3 Module Enable

This signal when asserted (low state) indicates that primary power is coming from the battery converter. This signal forces a "standby" state by internally de-asserting power request. This shuts down the Channel 1 and 3 outputs. An AC Low - DC Low sequence precedes the fall in actual DC output. See figure 5.4.

Electrical Characteristics:

Low State (asserted): External low impedance to power supply return capable of sinking 3 mA. minimum with a max. voltage of 1 Volt.

High State (unasserted): High impedance, capable of blocking +15 V with 1 micro amp max. leakage.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 25 of 39

5.2.4 AIR FAULT:

This signal is a shutdown input with internal latch intended for use with external environmental sensors. It consists of a pull-up line and fault signal which must be connected together externally to permit normal operation (see Figure 5). When the AIR FAULT line is pulled low to P.S. return, all DC power is removed after an AC low - DC Low sequence. An internal latch is also set, holding this condition until Power Request and Standby inputs are de-asserted ("Key OFF"). Under default conditions with both lines open, the Power Supply will not operate.

The minimum fault assertion time to guarantee a latch is 100 microseconds.

Electrical Characteristics:

Asserted (low state): Low impedance to P.S. return capable of sinking 10 mA. with a maximum Voltage of 1 Volt.

Unasserted (high state): High impedance capable of blocking 15 VDC with a max. leakage of 1 Microamp.

Note: Electrical Characteristics apply when "pull-up" and "fault" are connected together.

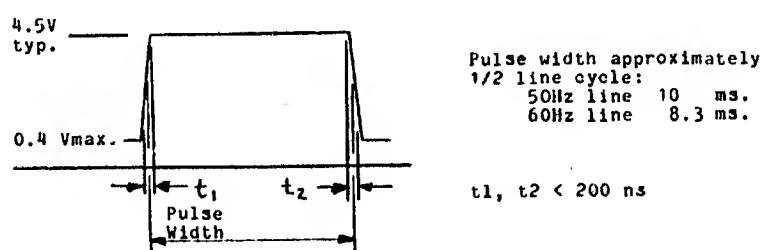
SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 26 of 39

5.3 Power-Up/Power-Down Sequencing

See Figure 5.2 for sequence of signals and events on power-up and power-down.

FIGURE 5.1 LINE CLOCK SIGNAL



SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

SHEET 27 of 39

ENGINEERING SPECIFICATION

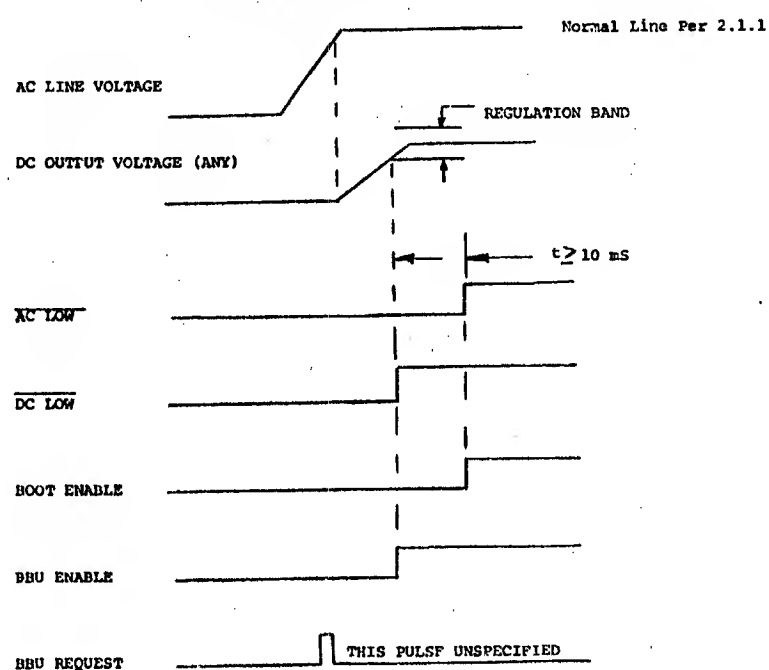
CONTINUATION SHEET

TITLE H7202B POWER SUPPLY ENGINEERING SPECIFICATION

FIGURE 5.2

POWER UP SEQUENCING: AC LINE

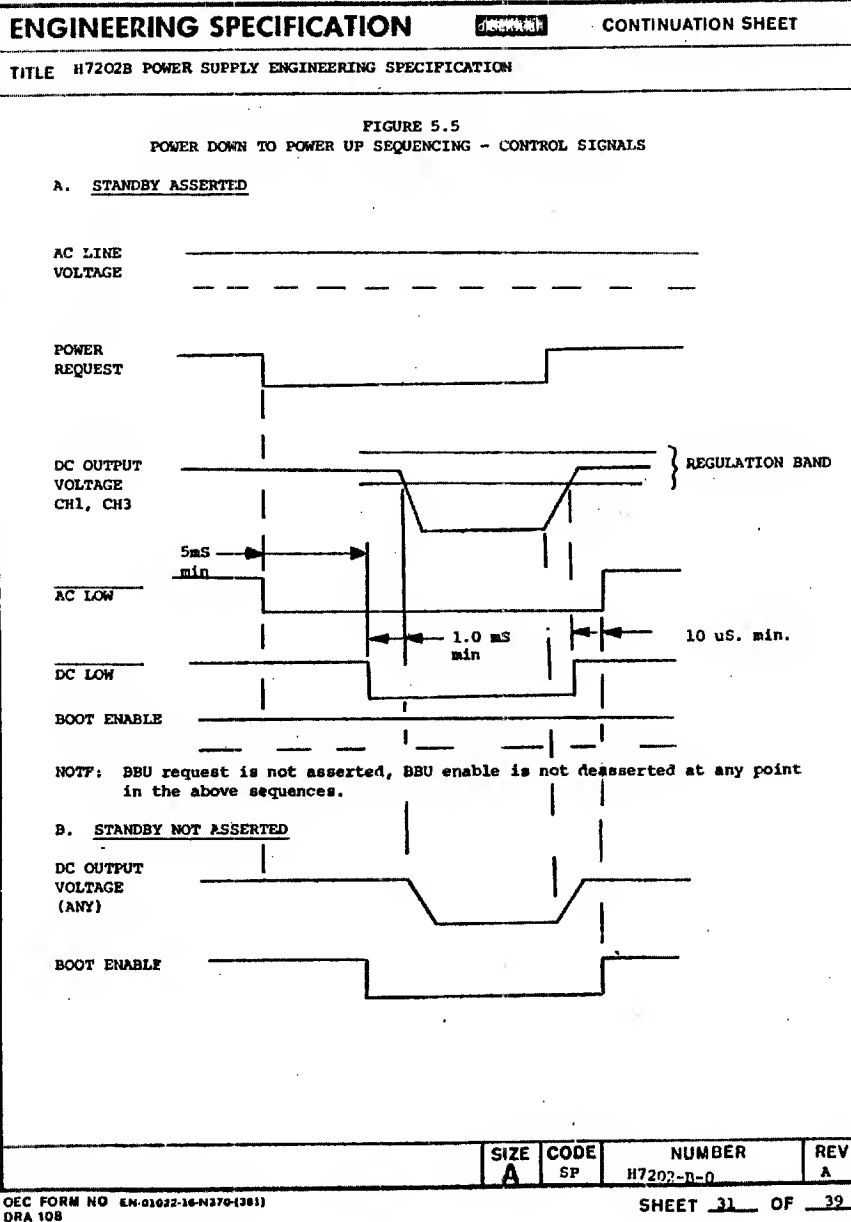
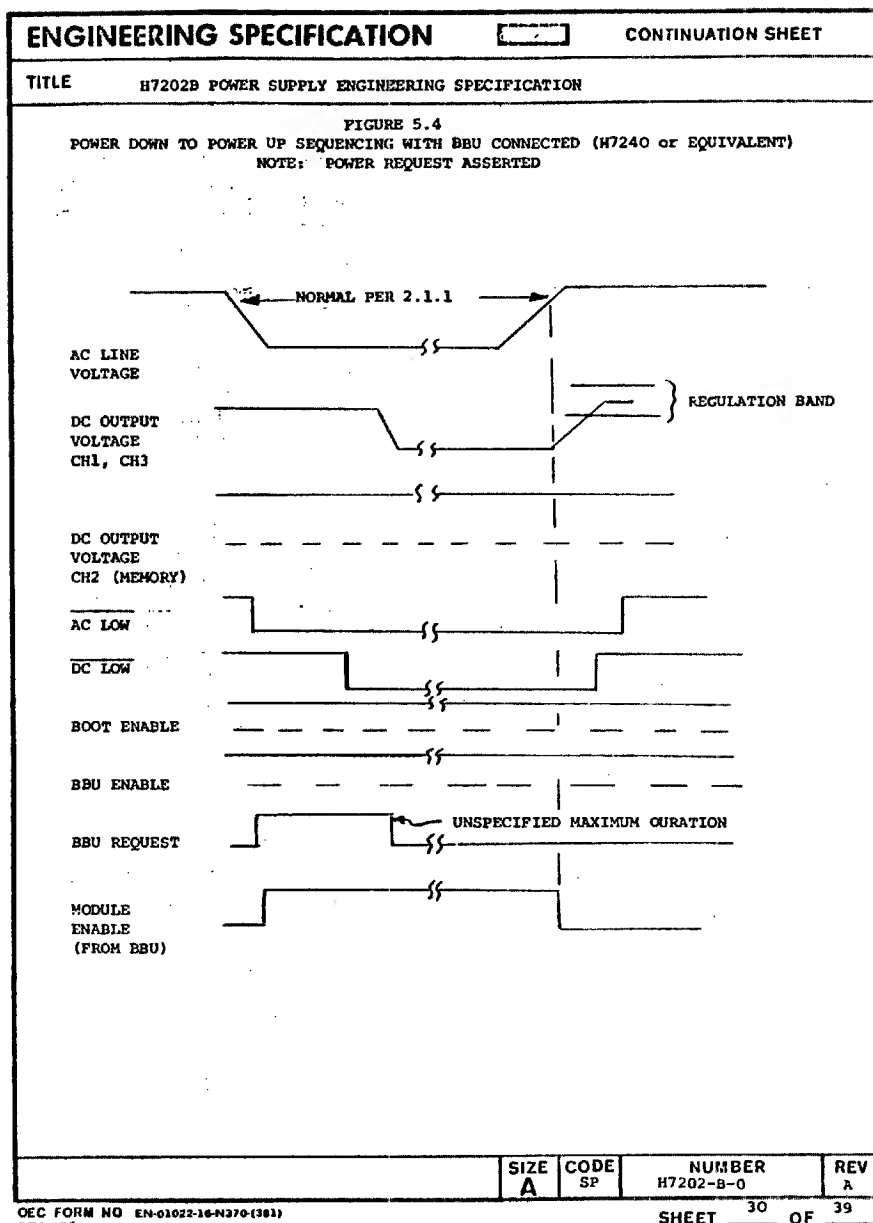
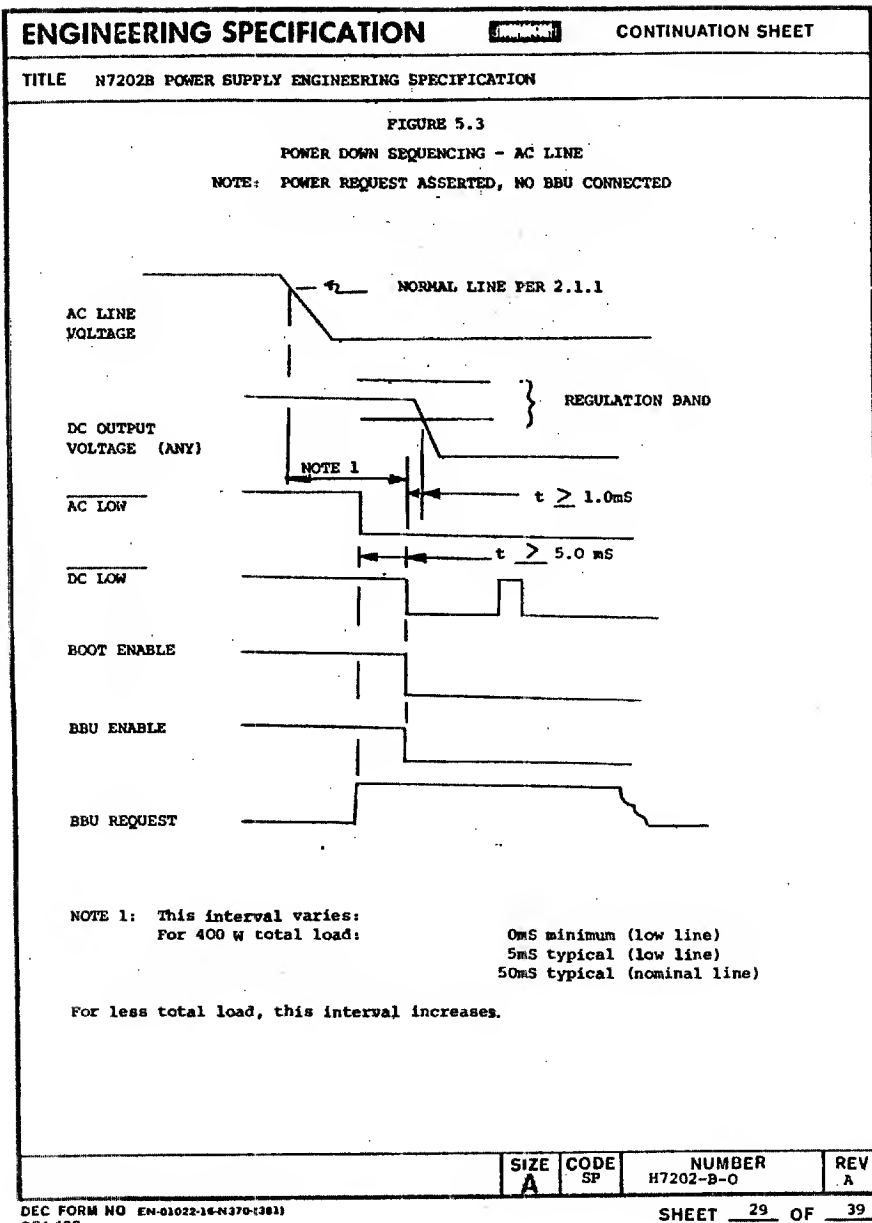
NOTE: Power Request Asserted



SIZE CODE NUMBER REV
A SP H7202-B-0 A TW

DEC FORM NO EN-01022-16-N370-(381)
DRA 108

SHEET 28 OF 39



DIGITAL EQUIPMENT CORPORATION

5.4 Status Indicators

Three red light emitting diodes indicate the status of each of the three power channels. These are visible through the connection access cover and labeled. Each LED will be on when that channel is on and outputs are within normal range.

Labels are as follows:

Channel	Label	Status
1	Main +5V	OK
2	Memory Power	OK
3	Com. Power	OK

DIGITAL EQUIPMENT CORPORATION

CHAPTER 6
MECHANICAL AND PHYSICAL SPECIFICATIONS

6.1 Size

The overall dimensions are 5 X 6.25 X 21 inches nominal, conforming to the dimensions shown in Figure 6.1.

6.2 Weight

The power supply with housing has a maximum weight of 8.2 kilograms (18lbs).

6.3 Mounting

Through threaded inserts compatible with BA11-H and BA11-Z boxes.

6.4 Cooling

Externally supplied forced air at 400 linear feet per minute (20 m/s) is required to properly cool this unit when operating at full load and max. temperature. Volume requirement is approximately 80 cubic feet per minute. A suitable air filter is required to prevent dirt accumulation inside the unit. (See 7.6)

6.5 Thermal Protection

The power supply is self-protecting against the loss of adequate cooling air or excessive temperature by internal temperature switches which shut down the power supply. This sets an internal latch which is externally reset by de-asserting both power request and standby inputs (console key to OFF).

6.6 Accessibility

6.6.1 Connections:

All power and signal connections are available at the rear of the unit. A protective clear cover must be removed to access many of the power and signal connectors.

6.6.2 Service:

To access the working internal modules, the input power connector P2 must be disconnected to allow the top cover to be removed. This disconnects all HV power from the input harness. Channel 2 and 3 power modules may be removed at this point.

To remove the H7200 power module, the AC input panel must be removed, as well as the mounting screws on the bottom of the unit as well as the high current cables.

SIZE	CODE	NUMBER	REV	TW
A	SP	H7202-B-0	A	TW

SHEET 33 of 39

DIGITAL EQUIPMENT CORPORATION

6.7 Identification Stickers

Special markings or compliance stickers are placed on the outside of the housing near the circuit breaker access, adjacent to the AC inlet connector and on the top cover.

6.8 Input/Output Connectors

6.8.1 Line Interfaces

Interfaces at AC Line potential (AC input line, battery back-up power) are through connectors in the chassis at the rear of the unit. AC line input is directly into the line filter.

6.8.2 Main Output

5V, 60A output is through screw and insert connections on the rear side corners. Interface to the load is then through flex-print (wire could also be used).

6.8.3 Other Interfaces

All other interfaces are from connectors on the distribution board under the rear protective cover. Interfaces included are:

- (J2) Backplane (by flexprint) - includes DC power other than 5V/60A, and processor signals.
- (J3) Fan: Power for DC fans and signals to and from air flow sensor.
- (J7) Fan: Power for additional DC fan.
- (J4) Battery Back-up: Signals to Battery Back-up unit.
- (J6) DEC Power Bus.
- (J1) Console - Control signals.

SIZE	CODE	NUMBER	REV	TW
A	SP	H7202-B-0	A	TW

SHEET 34 of 39

DIGITAL EQUIPMENT CORPORATION

6.8.4 DEC Power Bus

These signals are carried out from the distribution board (J6) to the chassis where the standard 3 pin connector is accessible.

6.9 PACKAGING

Shipment of this unit requires that proper containers be used:

bulk shipment	3700635-00
single unit shipment	3700635-01

(See A-SP-3700635-0-0)

SIZE	CODE	NUMBER	REV	TW
A	SP	H7202-B-0	A	TW

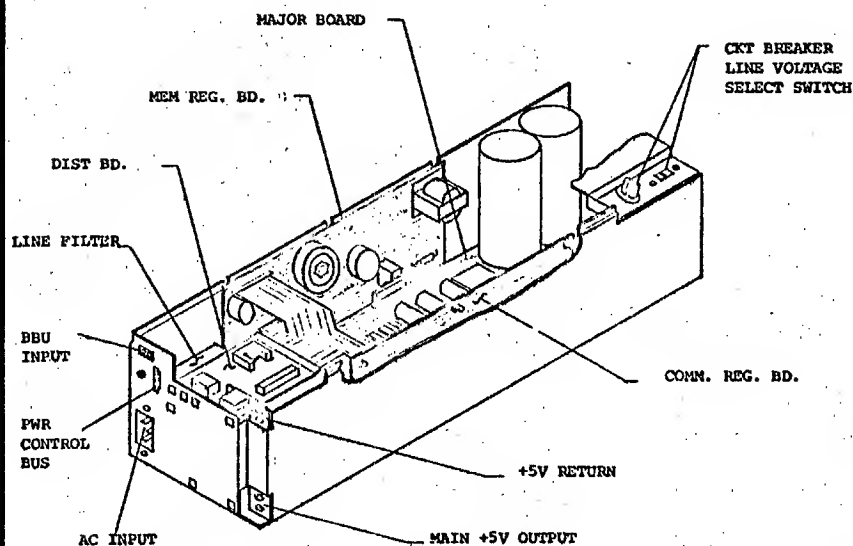
SHEET 35 of 39

ENGINEERING SPECIFICATION

CONTINUATION SHEET

TITLE H7202B POWER SUPPLY ENGINEERING SPECIFICATION

FIGURE 6.1
MECHANICAL CONFIGURATION



NOTES:

1. View shown with top cover and access panel removed.
2. Overall dimensions of power supply 21.00" X 6.25" X 5.00"

SIZE	CODE	NUMBER	REV	TW
A	SP	H7202-B-0	A	TW

DEC FORM NO EN-01022-16-N370-(381)
ORA 108

SHEET 36 OF 39

DIGITAL EQUIPMENT CORPORATION

CHAPTER 7
ENVIRONMENTAL SPECIFICATIONS

General: In compliance with DEC STD 102, rev C class C.

7.1 Temperature

7.1.1 Operating Ambient Temperature Range

5 C to 55 C (intended for use in equipment rated DEC-STD 102, Class C).

7.1.2 Storage Temperature Range

-40 C to + 70 C.

7.2 Humidity

Per DEC Standard 102, Class C, Paragraph 3.0.

7.3 Altitude

7.3.1 Operating Limit

22.2 in Hg. (8,000 ft.).

7.3.2 Storage Limit

8.9 in. Hg. (30,000 ft.).

7.4 Vibration

Per DEC Standard 102, Class C, Paragraph 6.0.

7.5 Mechanical Shock

Per DEC Standard 102, Paragraph 5.D.

7.6 Dirt Protection

An external filter for cooling air is required to prevent internal dirt accumulation. This is necessary to preserve the integrity of the insulation systems.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW
SHEET 37 of 39

DIGITAL EQUIPMENT CORPORATION

CHAPTER 8
RELIABILITY

8.1 Life Expectancy

The design goal for life expectancy is 10 years.

8.2 Mean Time Between Failure

The design MTBF is greater than 27,000 hours based on a parts count calculation and data from MIL-HBK-217B and DEC STD 139.

SIZE CODE NUMBER REV
SP H7202-B-0 A TW
SHEET 38 of 39

DIGITAL EQUIPMENT CORPORATION

CHAPTER 9
SAFETY

The power supply as specified herein shall be UL recognized, CSA certified and comply with DEC STD 119 REV C.

9.1 Electrical

The power supply and its application (including battery back-up) shall be listed per UL-478-Electronic Data Processing Units and Systems and meet UL 1012 - Power Supplies.

The power supply and its application (including battery back-up) shall meet the following safety codes:

CSA C22.2	No. 154	Canadian Electrical Code, Part II, Safety Standards for Electrical Equipment.
VDE D804		Regulations for Telecommunication Apparatus including Information Processing Equipment.
IEC 435		Safety of Data Processing Equipment.

9.2 Regulatory Bodies

See DEC Standards 60 and 119.

9.3 Isolation

See Section 2.1.7 of this specification. Refer also to DEC Standards 60 and 119.

9.4 Grounding

The ground wire (green/yellow stripe) is connected to the power supply frame, housing and shields. The 5V return lead is internally connected to the chassis and ground wire.

SIZE CODE NUMBER REV
A SP H7202-B-0 A TW
SHEET 39 of 39

This drawing and specifications, herein, are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.

DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS			
PACKAGING INSTRUCTION		REV: _____	DATE: _____
TITLE PKG POWER SUPPLY H7202/H7200/H7211/H7213			
LEGEND			
VARIATION	USED ON	PACKAGE TYPE	REMARKS
3700635-01	H7202	CUSTOMER	
3700635-02	H7202	INTERPLANT	BULK
3700635-03	H7200	CUSTOMER	
3700635-04	H7200	INTERPLANT	BULK
3700635-05	H7211/H7213	CUSTOMER	
3700635-06	H7211/H7213	INTERPLANT	BULK
PARTS LIST 37000635-01 THROUGH 3700635-06. REFER TO OFF-SHEET PARTS LIST K-PL-3700635-0-08P			
PACKAGING INSTRUCTIONS 3700635-01			
STEP	PROCEDURE FIGURE 1		
1.	WRAP THE FIVE PANEL FOLIOER (9906851-00) AROUND THE H7202-B POWER SUPPLY AND TAPE IT WITH CARTON SEALING TAPE (9905729-00).		
2.	INSTALL A MOLOED FOAM PAD (9990010-00) ONTO EACH ENO OF THE FIVE PANEL FOLIOER.		
3.	SET UP THE FULL OVERLAP CARTON (9906849-00) USING ONE (1) STRIP OF CARTON SEALING TAPE ALONG THE LENGTH AND ONE (1) STRIP ALONG EACH SIOE.		
4.	POSITION THE PRE-PACKEO H7202-B POWER SUPPLY INTO THE FULL OVERLAP CARTON.		
5.	CLOSE AND SEAL THE FULL OVERLAP CARTON USING ONE (1) STRIP OF CARTON SEALING TAPE ALONG EACH SIOE.		
SHEETS 5 THRU 10 "C" SIZE			
ENG <i>R. Smith</i>	APPD <i>John Barrett</i>	SIZE <i>A</i>	CODE <i>PA</i> NUMBER <i>3700635-0-0</i> REV <i>A</i>
EN-01189-16-0000-33L1			
SHEET 1 OF 10			

PACKAGING INSTRUCTION		CONTINUATION SHEET	
TITLE PKG POWER SUPPLY H7202/H7200/H7211/H7213			
PACKAGING INSTRUCTIONS 3700635-02			
STEP	PROCEDURE FIGURE 2		
1.	SQUARE AND SET UP THE HALF SLOTTED CARTON (9906856-01), USING ONE (1) STRIP OF CARTON SEALING TAPE DOWN THE CENTER EXTENDING THREE (3) INCHES DOWN EACH SIDE, AND POSITION IT ONTO THE GENERAL PURPOSE PALLET (9906199-00).		
2.	FIT THE GLUED TUBE (9906856-04) INTO THE HALF SLOTTED CARTON.		
3.	AFTER SETTING TWO (2) MOLDED FOAM PAOS (9990015-00) INTO THE HALF SLOTTED CARTON, ARRANGE THE ASSEMBLED AND NESTED DIVIDER (9906856-03) INTO THE CARTON.		
4.	INSTALL THE H7202-B POWER SUPPLY INTO EACH OF THE DIVIDER CELLS (48 TOTAL), MAKING SURE THAT THE CAPACITOR IS ON THE TOP.		
5.	PLACE THE TELESCOPE CAP (9906856-02) ONTO THE HALF SLOTTED CARTON.		
6.	STRAP THE TELESCOPE CARTON ASSEMBLY TO THE PALLET USING TWO (2) POLYESTER STRAPS (9905734-00).		
PACKAGING INSTRUCTIONS 3700635-03			
STEP	PROCEDURE FIGURE 3		
1.	WRAP THE DIE CUT CARTON (9906853-00) AROUND THE H7200 POWER SUPPLY AND TAPE IT WITH CARTON SEALING TAPE (9905729-00).		
2.	INSTALL A MOOLED FOAM PAO (9990012-00) ONTO EACH END OF THE DIE CUT CARTON.		
3.	SET UP THE FULL OVERLAP CARTON (9906852-00) USING ONE (1) STRIP OF CARTON SEALING TAPE ALONG THE LENGTH AND ONE (1) STRIP ALONG EACH SIDE.		
4.	POSITION THE PRE-PACKEO H7200 POWER SUPPLY INTO THE FULL OVERLAP CARTON.		
5.	CLOSE AND SEAL THE FULL OVERLAP CARTON USING ONE (1) STRIP OF CARTON SEALING TAPE ALONG THE LENGTH AND ONE (1) STRIP ALONG EACH SIDE.		
	SIZE A	CODE PA	NUMBER 3700635-0-0 REV A
EN-01190-16-0000-33L1			
SHEET 2 OF 10			

PACKAGING INSTRUCTION		CONTINUATION SHEET	
TITLE PKG POWER SUPPLY H7202/H7200/H7211/H7213			
PACKAGING INSTRUCTIONS 37000635-04			
STEP	PROCEOURE FIGURE 4		
1.	WRAP THE DIE CUT CARTON (9906853-00) AROUND THE H7200 POWER SUPPLY AND TAPE WITH CARTON SEALING TAPE (9905729-00).		
2.	SQUARE AND SET UP THE HALF SLOTTED CARTON (9906856-01) USING ONE (1) STRIP OF CARTON SEALING TAPE DOWN THE CENTER AND EXTENDING IT THREE 93) INCHES DOWN EACH SIDE; POSITION IT ONTO THE GENERAL PURPOSE PALLET (9906199-00).		
3.	FIT THE GLUED TUBE (9906856-04) INTO THE HALF SLOTTED CARTON.		
4.	PLACE TWO (2) MOLDED FOAM PADS (9990015-00) INTO THE HALF SLOTTED CARTON.		
5.	ARRANGE EIGHTY-EIGHT (88) H7200 POWER SUPPLIES, PRE-WRAPPEO PER STEP ONE, PER PALLET PATTERN CONFIGURATION.		
6.	FIT THE TELESCOPE CAP (9906856-02) ONTO THE HALF SLOTTED CARTON.		
7.	STRAP THE TELESCOPE CARTON ASSEMBLY TO THE PALLET USING TWO (2) POLYESTER STRAPS (9905734-00).		
PACKAGING INSTRUCTIONS 3700635-05			
STEP	PROCEDURE FIGURE 5		
1.	OPEN THE ALREADY SET-UP DIE CUT CARTON WITH CONVOLUTED FOAM (9906858-00).		
2.	PLACE EITHER THE H7211 OR H7213 POWER SUPPLY (COMPONENT SIDE DOWN) INTO THE OIE CUT CARTON WITH FOAM.		
3.	CLOSE THE SELF-LOCKING DIE CUT CARTON WITH ALL FLAPS INSIDE.		
	SIZE A	CODE PA	NUMBER 3700635-0-0 REV A
EN-01190-16-0000-33L1			
SHEET 3 OF 10			

PACKAGING INSTRUCTION		CONTINUATION SHEET	
TITLE PKG POWER SUPPLY H7202/H7200/H7211/H7213			
PACKAGING INSTRUCTIONS 3700635-06			
STEP	PROCEDURE FIGURE 6		
1.	ON A GENERAL PURPOSE PALLET (9906199-00) PLACE TWENTY-ONE (21) 3 X 7 PRE-PACKEO H7211 OR H7213 POWER SUPPLIES PER PALLET CONFIGURATION.		
2.	CONTINUE STACKING UNTIL THERE ARE EIGHT (8) TIERS HIGH.		
3.	USING ANGLEBOARDS (9906185-14) POLYESTER STRAPPING (9905734-00), STRAP THE POWER SUPPLIES TO THE PALLET.		
	SIZE A	CODE PA	NUMBER 3700635-0-0 REV A
EN-01190-16-0000-33L1			
SHEET 4 OF 10			

SIZE CODE
C PA 3700635-0-0
REV. A

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1981 DIGITAL EQUIPMENT CORPORATION

PACKAGE DIMENSIONS, WEIGHTS
& PLASTIC PACKING MATERIAL

	USA		METRIC	
WEIGHT	24.0	LBS.	10.9	KG.
LENGTH	28.25	IN.	718	MM
WIDTH	11.81	IN.	300	MM
HEIGHT	14.25	IN.	362	MM
CUBE	27.5	CU. FT.	0.08	CU. M
DENSITY	87	LBS./CU. FT.	140	KG./CU. M
*PLASTIC	% V L	% W T	TYPE	

*% VOLUME (EXPANDED)
% WEIGHT (UNEXPANDED)

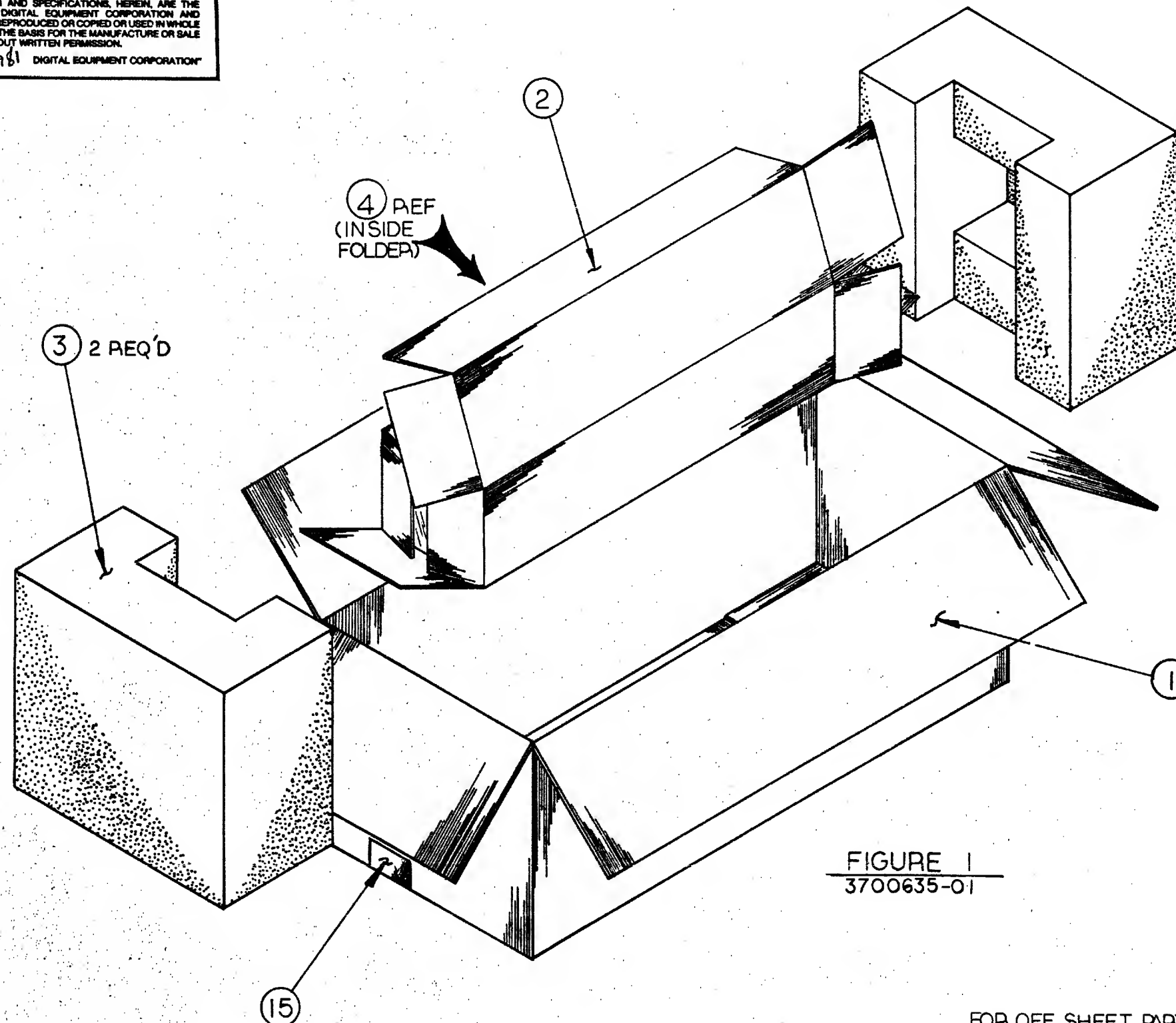


FIGURE 1
3700635-01

FOR OFF SHEET PARTS LIST SEE K PL 3700635-0-DBP.

DRW. <i>Gyorko</i>	DATE <i>5/6/82</i>	TITLE	digital
CHK'D. <i>J. BARRETT</i>	DATE <i>7/82</i>	PKG	
DES. ENG. <i>R. SPINELLI</i>	DATE <i>6/82</i>	POWER SUPPLY	
RESP. ENG. <i>R. SPINELLI</i>	DATE <i>6/82</i>	H7202/H7200	
MFG. ENG. <i>NONE</i>	DATE <i>-</i>	DOCUMENT NUMBER	
NEXT HIGHER DOC.		SIZE CODE	NUMBER REV.
		C PA 3700635-0-0	A
		SCALE	SHEET 5 OF 10

REVISION HISTORY	ECO NUMBER	REV.
DATE		

SIZE CODE
C PA 3700635-0-0
REV. A

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION

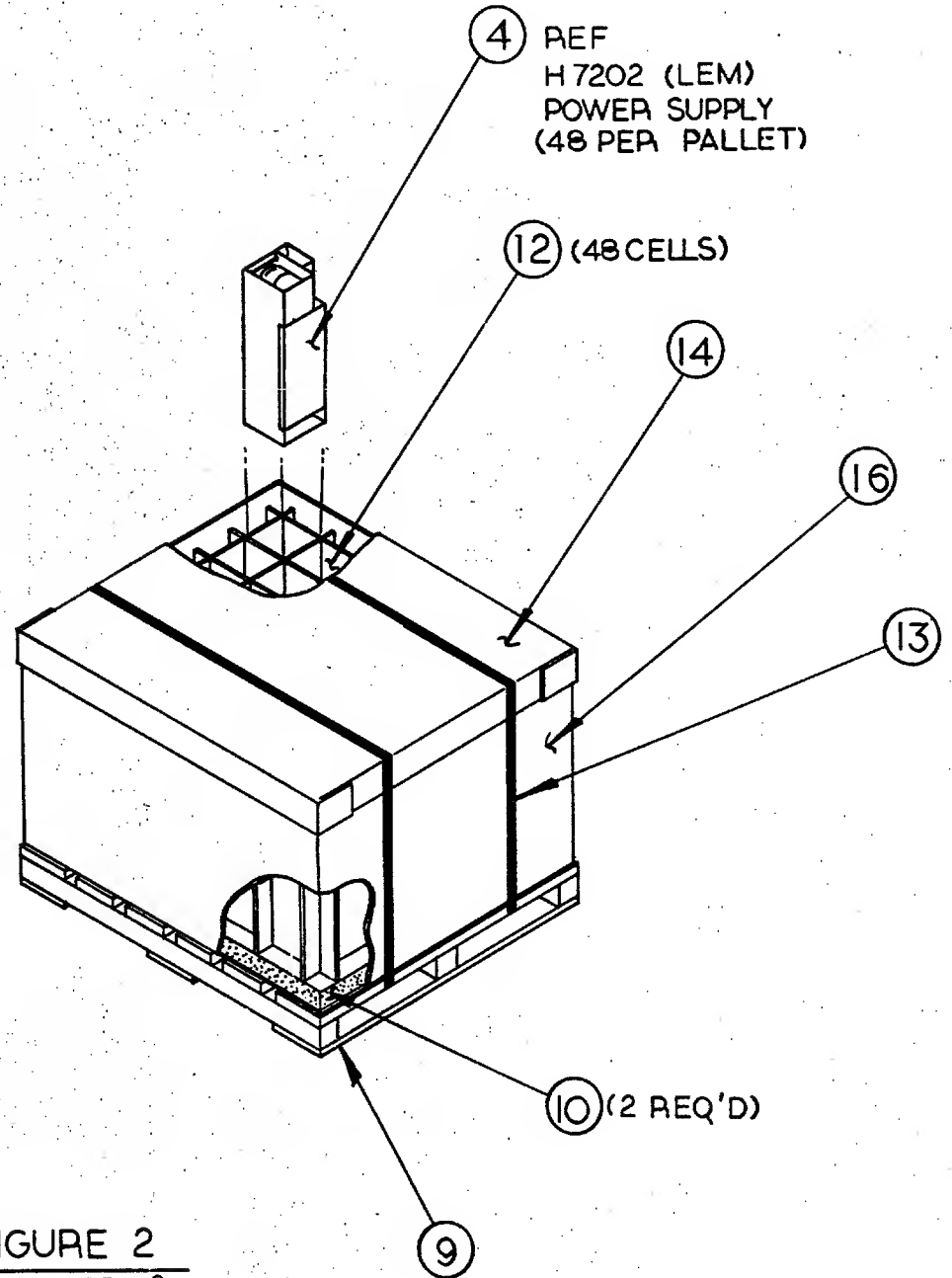


FIGURE 2
3700635-02

PACKAGE DIMENSIONS, WEIGHTS
& PLASTIC PACKING MATERIAL

	USA	METRIC
WEIGHT	1000.0 LBS.	454.0 KG.
LENGTH	48.00 IN.	1219 MM
WIDTH	42.00 IN.	1067 MM
HEIGHT	35.00 IN.	889 MM
CUBE	40.8 CU. FT.	1.16 CU. M
DENSITY	24.5 LBS./CU. FT.	392 KG/CU. M
*PLASTIC	% V % W	TYPE

*% VOLUME (EXPANDED)
% WEIGHT (UNEXPANDED)

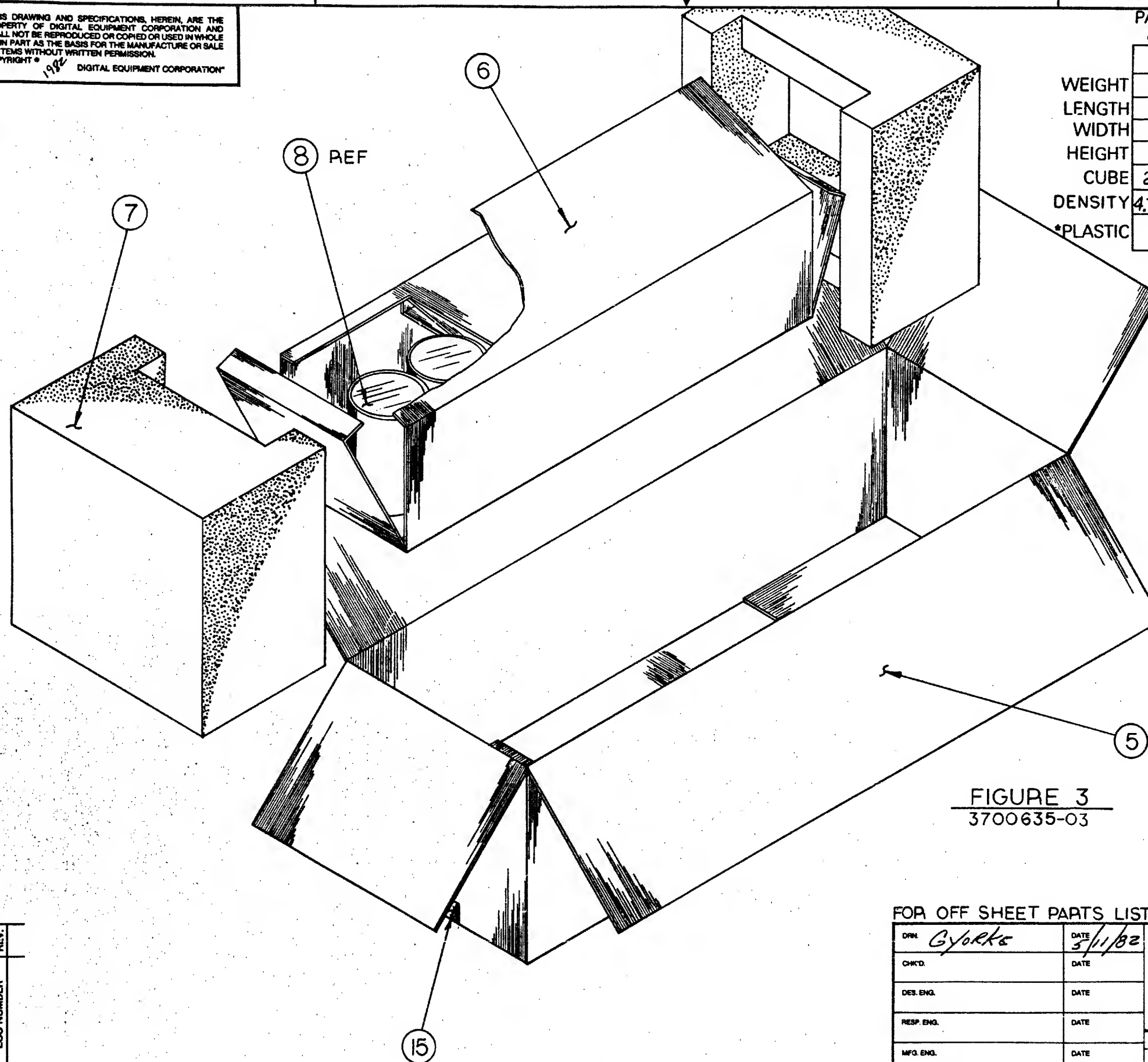
REVISION HISTORY	ECO NUMBER	REV.
DATE		

FOR OFF SHEET PARTS LIST SEE KPL-3700635-0-DBP

DRN. <i>Gyorka</i>	DATE <i>5/12/82</i>	TITLE <i>digital</i>
CHK'D.	DATE	PKG POWER SUPPLY H7202 / H7200
DES. ENCL.	DATE	
RESP. ENCL.	DATE	
MFG. ENCL.	DATE	
NEXT HIGHER DOC.		DOCUMENT NUMBER
		SIZE CODE NUMBER REV. C PA 3700635-0-0 A
		SCALE <i>1/2" = 1"</i> SHEET 6 OF 10

SIZE CODE
C PA 3700635-0-0
REV. A

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION



PACKAGE DIMENSIONS, WEIGHTS
& PLASTIC PACKING MATERIAL

	USA		METRIC	
WEIGHT	10.0	LBS.	4.5	KG.
LENGTH	22.88	IN.	581	MM
WIDTH	11.50	IN.	292	MM
HEIGHT	13.88	IN.	353	MM
CUBE	2.11	CU. FT.	0.06	CU. M
DENSITY	4.7	LBS./CU. FT.	76	KG/CU. M
*PLASTIC	% V	% W	TYPE	

*% VOLUME (EXPANDED)
% WEIGHT (UNEXPANDED)

FIGURE 3
3700635-03

FOR OFF SHEET PARTS LIST SEE K-PL-3700635-O-DBP.

DRN <i>Gyorko</i>	DATE <i>3/11/82</i>	TITLE <i>digital</i>
CHKD.	DATE	PKG POWER SUPPLY
DES. ENG.	DATE	H7202/H7200
RESP. ENG.	DATE	
MFG. ENG.	DATE	
NEXT HIGHER DOC.		
DOCUMENT NUMBER		
SIZE C	CODE PA	NUMBER 3700635-0-0
SCALE	SHEET 7	OF 10

DATE	ECO NUMBER	REV.

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
 1982 DIGITAL EQUIPMENT CORPORATION

SIZE CODE
 C PA 3700635-0-0
 NUMBER
 REV.

PACKAGE DIMENSIONS, WEIGHTS & PLASTIC PACKING MATERIAL			
	USA	METRIC	
WEIGHT	650.0 LBS.	295.0	KG.
LENGTH	48.00 IN.	1219	MM
WIDTH	42.00 IN.	1067	MM
HEIGHT	35.00 IN.	889	MM
CUBE	40.8 CU. FT.	116	CU. M
DENSITY	16 LBS./CU. FT.	25.5	KG/CU. M
*PLASTIC	% V %	% W %	TYPE

*% VOLUME (EXPANDED)
 % WEIGHT (UNEXPANDED)

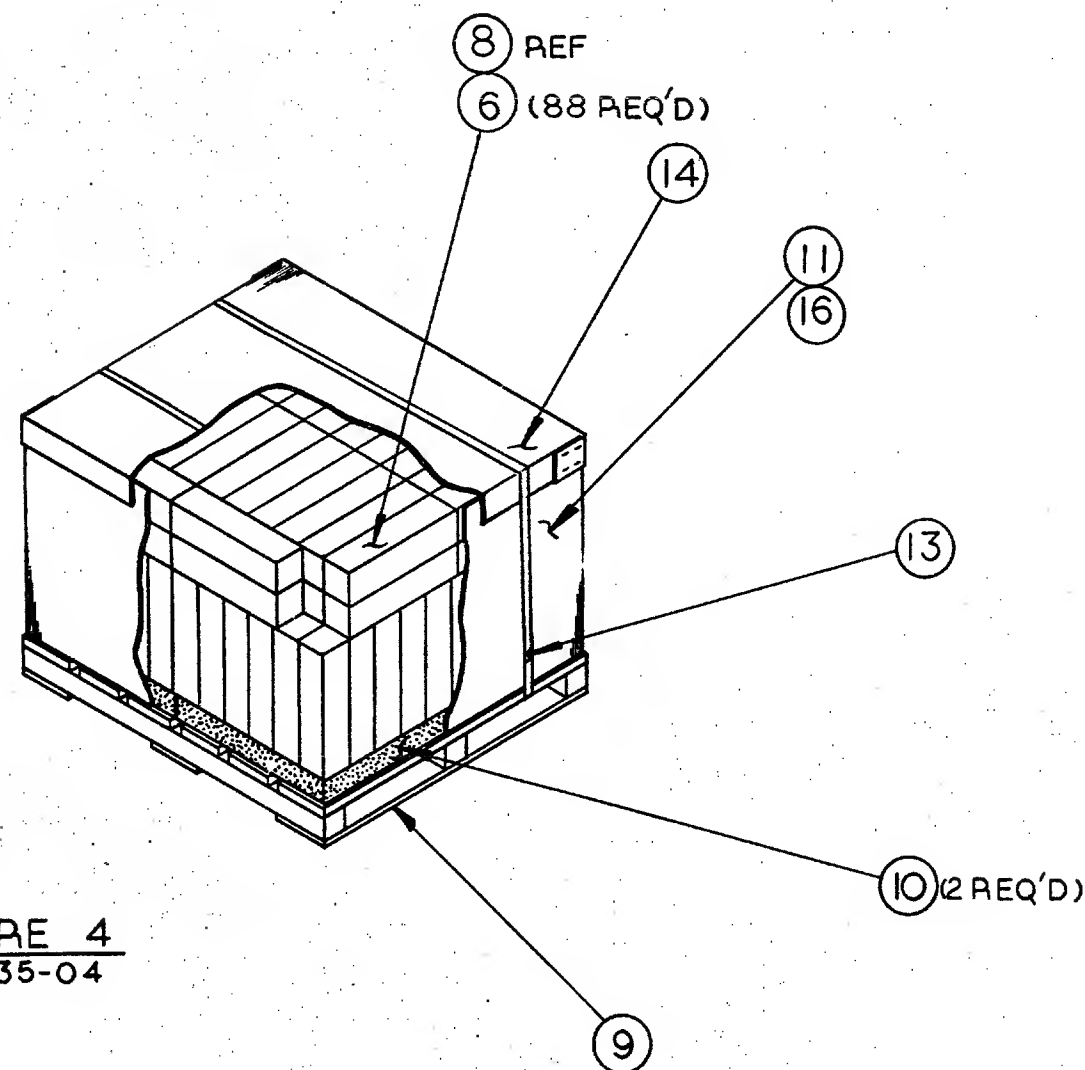


FIGURE 4
 3700635-04

REVISION HISTORY	
DATE	REV.
	ECO NUMBER

DRC 111B

FOR OFF SHEET PARTS LIST SEE K-PL-3700635-0-DBP

DRN. <i>Gyorke</i>	DATE <i>5/12/82</i>	TITLE <i>digital</i>
CHK'D.	DATE	PKG
DES. ENCL.	DATE	POWER SUPPLY
RESP. ENCL.	DATE	H7202/H7200
MFG. ENCL.	DATE	DOCUMENT NUMBER
NEXT HIGHER DOC.		SIZE CODE NUMBER REV.
		C PA 3700635-0-0 A
	SCALE <i>1/8" = 1"</i>	SHEET 8 OF 10

SIZE CODE
C PA 3700636-0-0
REV. A

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION

PACKAGE DIMENSIONS, WEIGHTS
& PLASTIC PACKING MATERIAL

	USA		METRIC	
WEIGHT	2.13	LBS.	0.97	KG.
LENGTH	14.00	IN.	356	MM
WIDTH	6.81	IN.	173	MM
HEIGHT	4.75	IN.	121	MM
CUBE	0.26	CU. FT.	0.0074	CU. M
DENSITY	8.2	LBS./CU. FT.	131	KG/CU. M
*PLASTIC	% $\frac{V}{L}$	% $\frac{W}{T}$	TYPE	

*% VOLUME (EXPANDED)
% WEIGHT (UNEXPANDED)

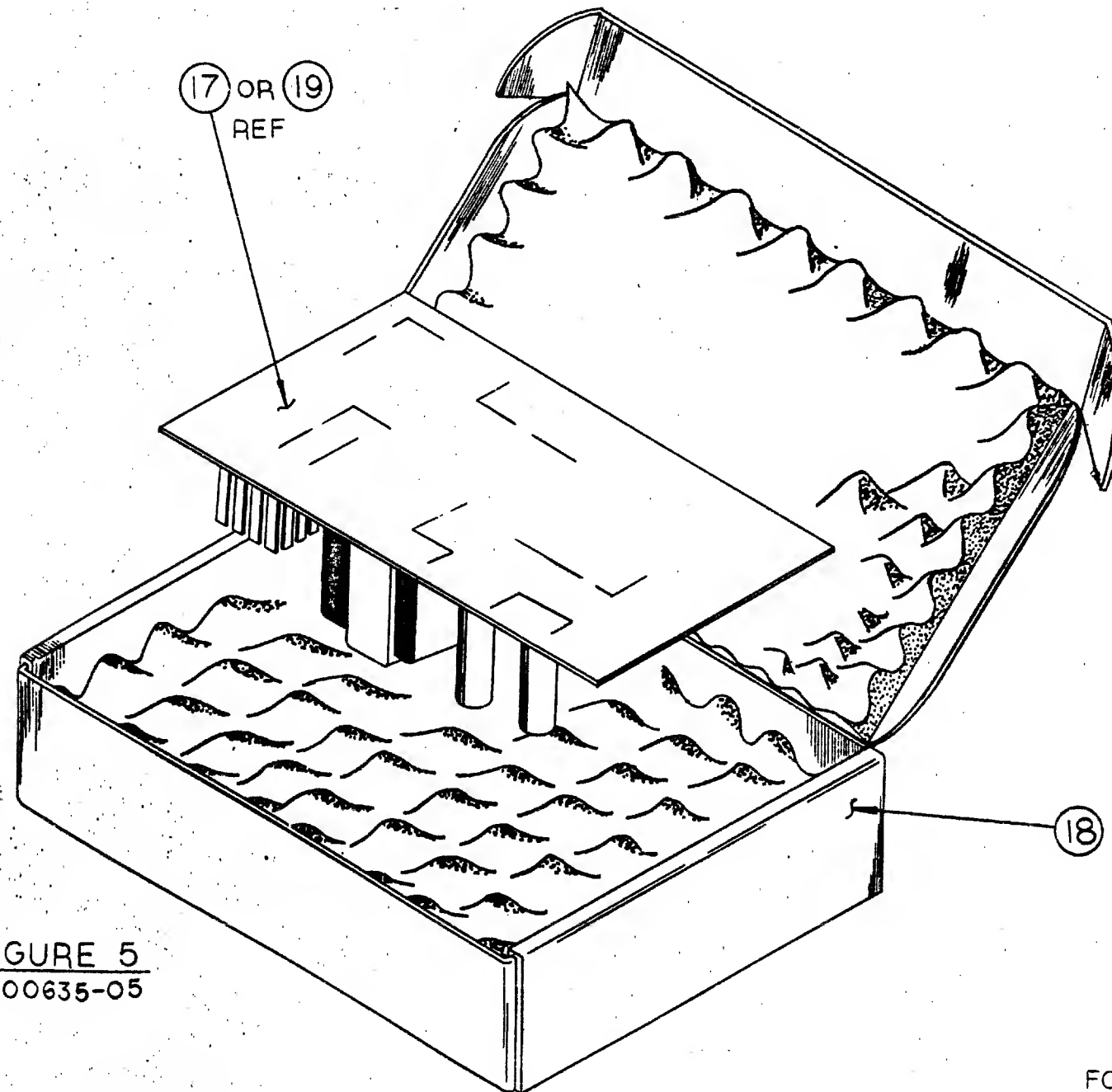


FIGURE 5
3700635-05

REVISION HISTORY	
DATE	ECO NUMBER

DRC 1118

FOR OFF SHEET PARTS LIST SEE K-PL-3700635-O-DBP

DRN. <i>Gyorkes</i>	DATE <i>5/3/82</i>	TITLE	digital
CHK'D.	DATE	PKG	
DES. ENG.	DATE	POWER SUPPLY	
RESP. ENG.	DATE	H7202/H7200	
MFG. ENG.	DATE	DOCUMENT NUMBER	
NEXT HIGHER DOC.		SIZE CODE NUMBER REV.	
		C PA 3700635-0-0 A	
		SCALE	SHEET 9 OF 10

SIZE CODE
C PA 3700635-0-0
REV. A

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION"

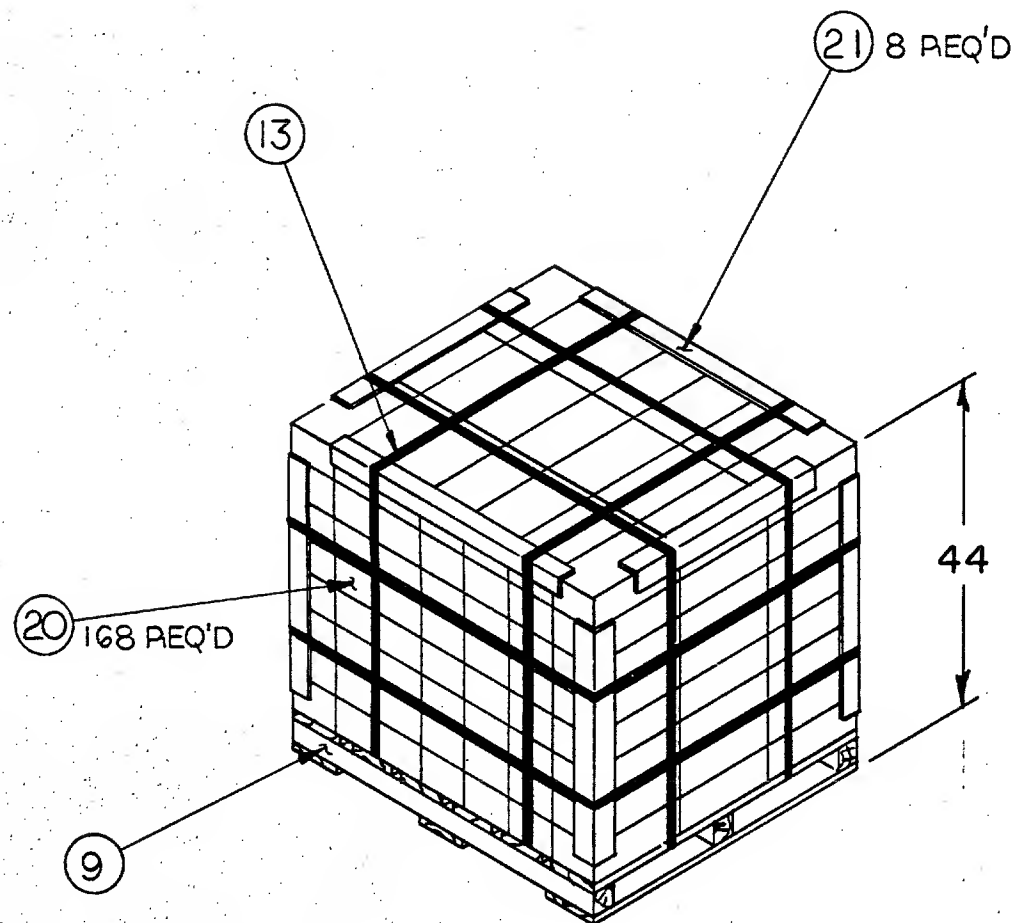
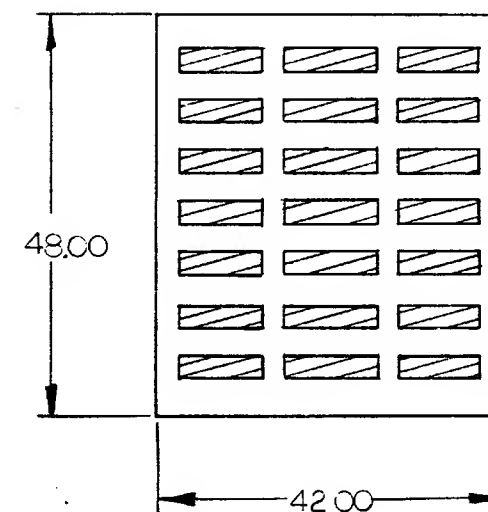


FIGURE 6
3700635-06

PACKAGE DIMENSIONS, WEIGHTS & PLASTIC PACKING MATERIAL			
	USA	METRIC	
WEIGHT	407.0 LBS.	185.0	KG.
LENGTH	49.00 IN.	1245	MM
WIDTH	42.00 IN.	1067	MM
HEIGHT	44.00 IN.	1118	MM
CUBE	52.4 CU. FT.	1.48	CU.M
DENSITY	78 LBS./CU. FT.	124	KG/CU.M
*PLASTIC	% V % L	% W % T	TYPE

*% VOLUME (EXPANDED)
% WEIGHT (UNEXPANDED)

21 CARTONS PER TIER
8 TIERS HIGH

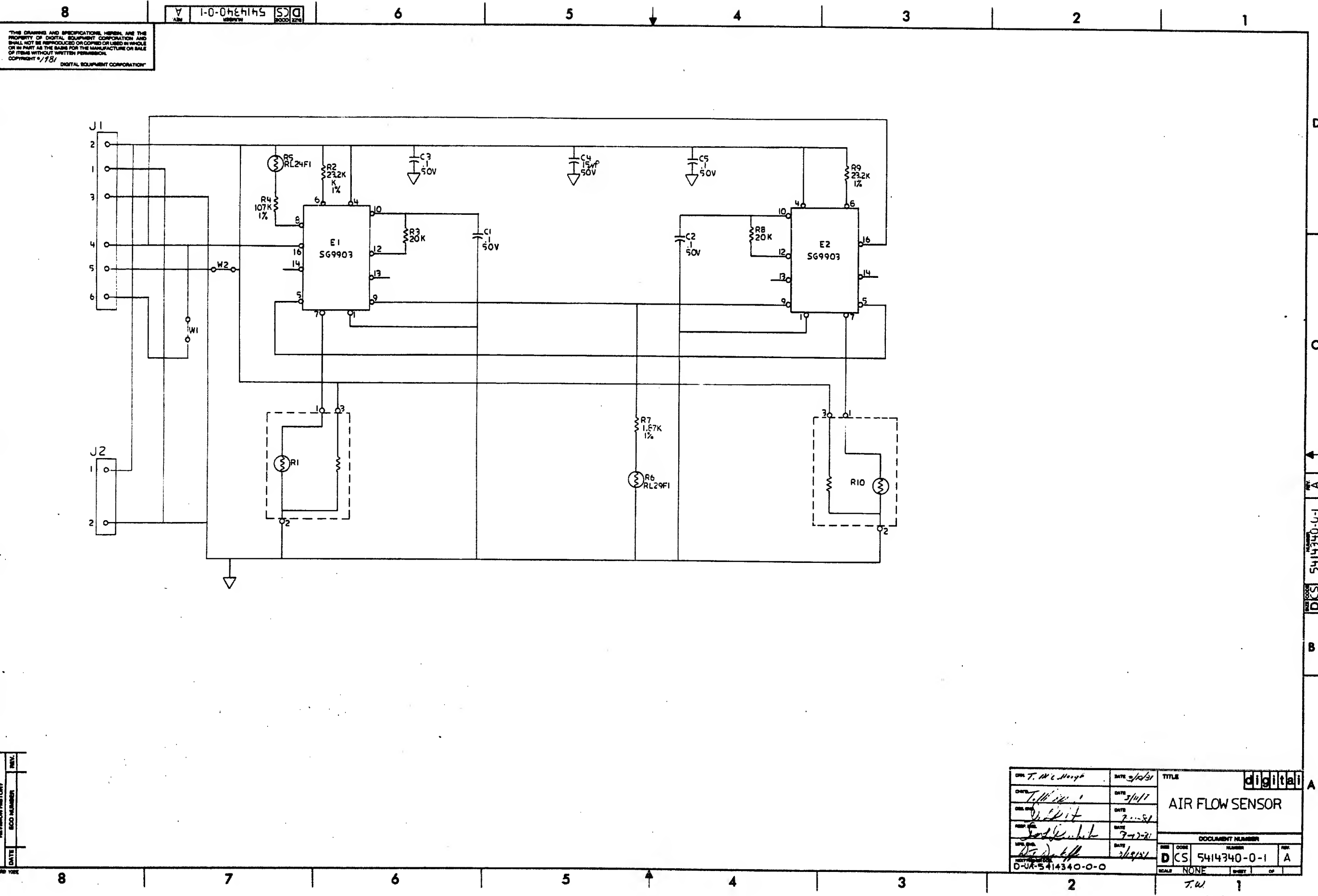


REVISION HISTORY	ECO NUMBER	REV.
DATE		

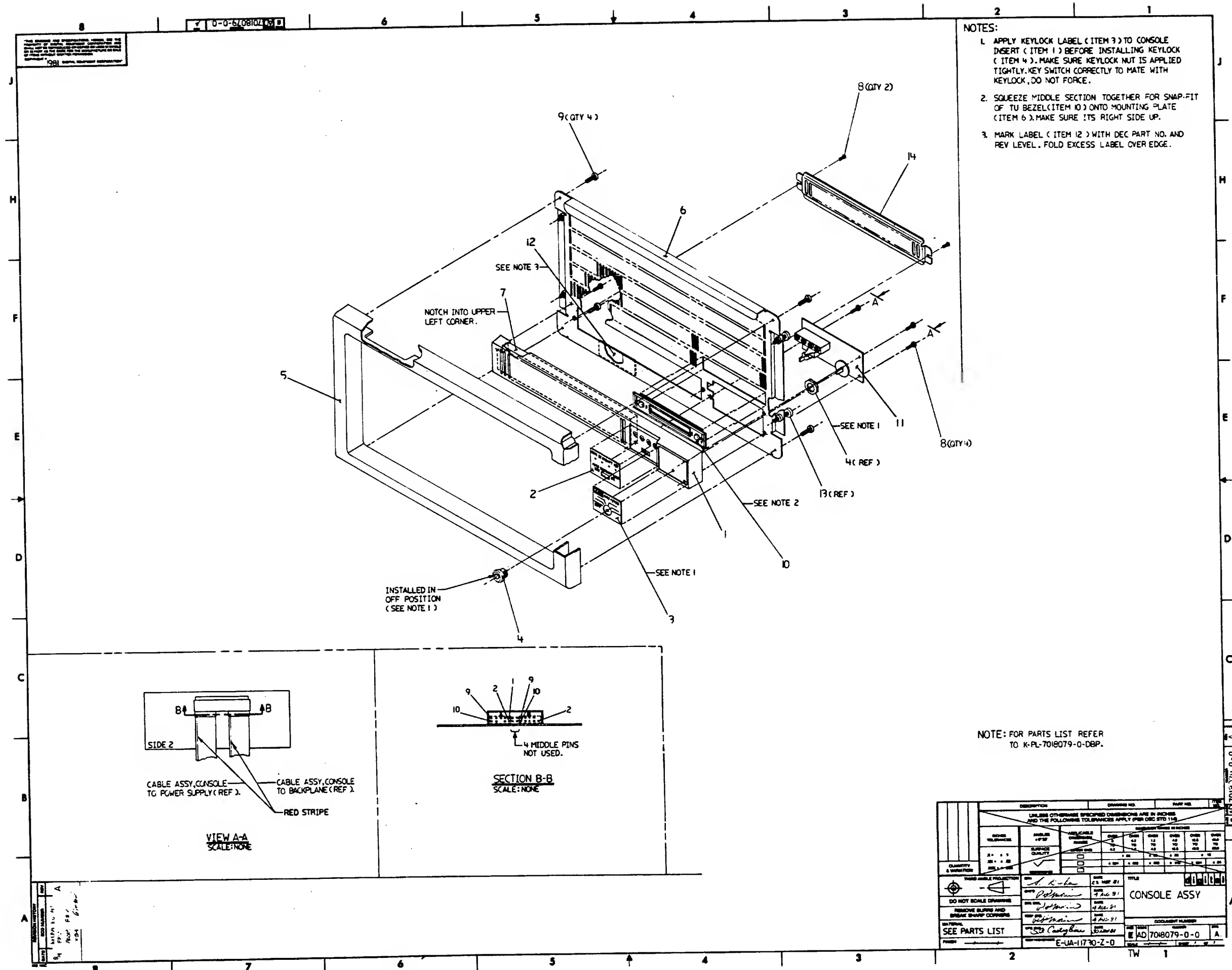
DRC 1118

FOR OFF SHEET PARTS LIST SEE K-PL-3700635-0-DBP

DRN. GyORKE	DATE 5/1/82	TITLE digital	
CHK'D.	DATE	PKG POWER SUPPLY H7202/H7200	
DES. ENG.	DATE	DOCUMENT NUMBER	
RESP. ENG.	DATE	C PA 3700635-0-0 A	
MFG. ENG.	DATE	SHEET 10 OF 10	
NEXT HIGHER DOC.			



DESIGNED BY T. W. H. H. H.	DATE 3/1/81	TITLE AIR FLOW SENSOR
CHECKED BY J. J. J. J.	DATE 7-12-81	DOCUMENT NUMBER D CS 5414340-0-1 A
APPROVED BY J. J. J. J.	DATE 7-12-81	SCALE NONE
DATE 7-12-81	BY T. W. H. H. H.	SHEET 1



AUTOMATED BY PRTLST.3P(44)

PARTS LIST

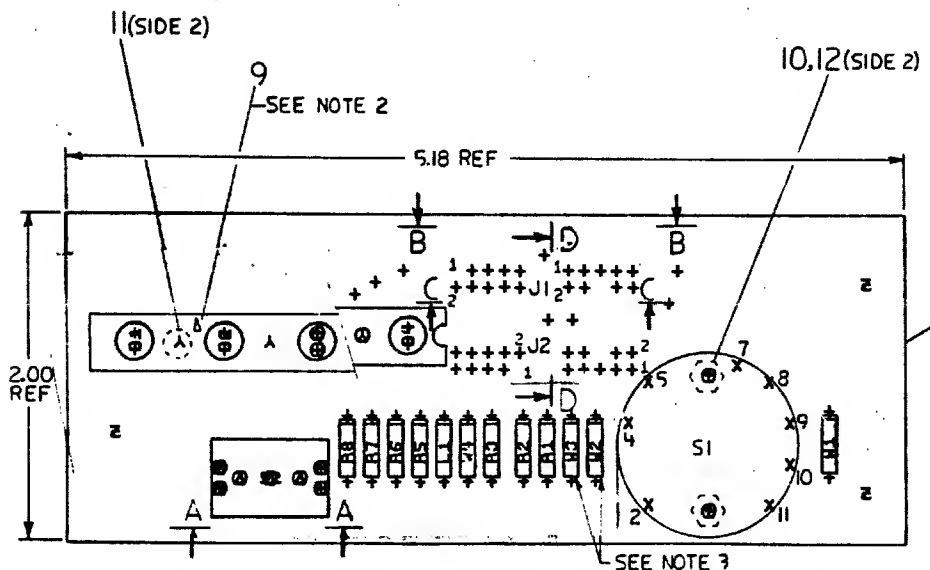
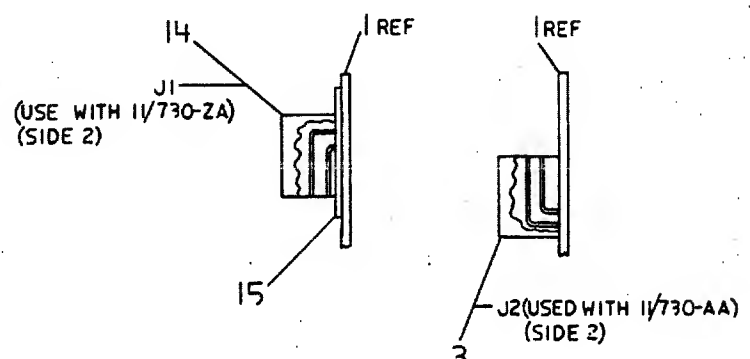
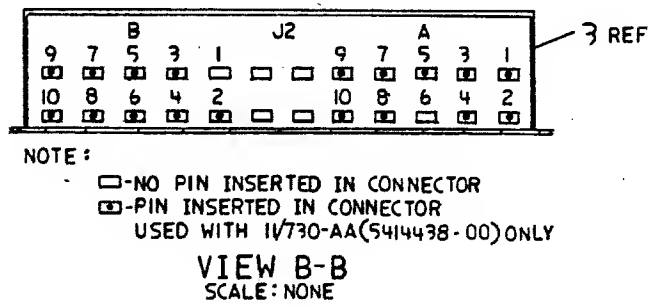
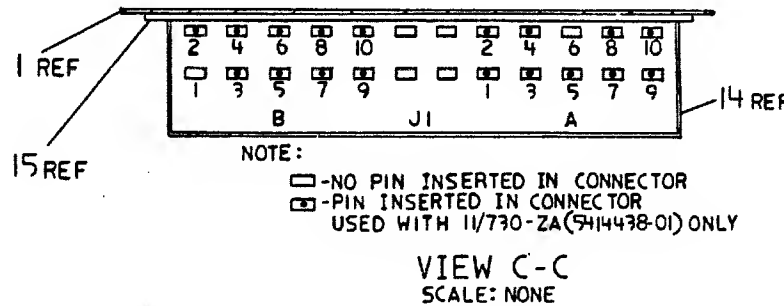
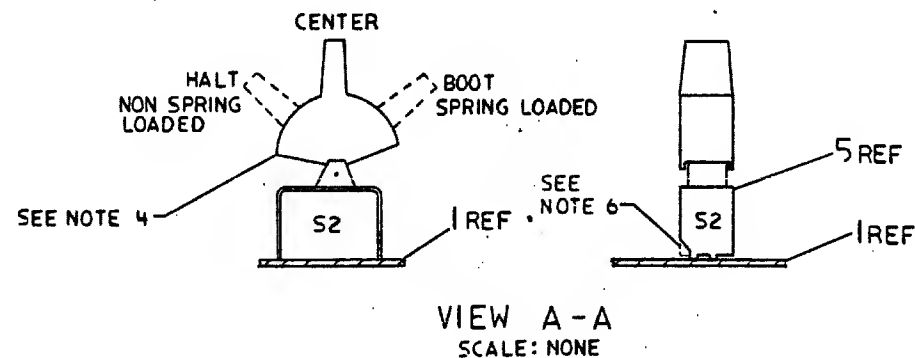
SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
1	1	E-IA-7424269-0-0	7424269-00	CONSOLE INSERT	1
2	2	A-PS-3617322-0-0	3617322-00	LABEL, LEGEND STRIP VAX 11/730 LE	1
3	3	A-PS-3617902-0-0	3617902-01	LABEL, LEGEND STRIP VAX 11/730 6P	1
4	4	A-PS-1216178-0-0	1216178-01	LOCK, PLASTIC 6POS ASSY	1
5	5	A-PS-1217094-0-0	1217094-00	BEZEL, PLASTIC 11-44	1
6	6	E-IA-7424832-0-0	7424832-00	PLATE, MTG 10-1/2	1
7	7	A-PS-1217665-0-0	1217665-01	FILTER, FOAM 11.5X1.85X1/2 SPPI	1
8	8		9009984-02	SCREW, SEMS, PHILLIPS PAN HD. 6-	6
9	9		9010119-00	SCREW, PHILLIPS TRUSS HD. 10-32	4
10	10	C-IA-7018168-0-0	7018168-00	TUSB DUAL DRIVE BEZEL ASSY	1
11	11	D-AD-5414438-0-0	5414438-01	CONSOLE MODULE	1
12	12		9009255-01	LABEL, POWER SUPPLY, 2-7/8" LG X	1
13	13		9006075-03	SCREW, TRUS, PHIL, 10-32X 3/4	REF
14	14	D-MD-7426334-0-0	7426334-01	SHIELD	1

REVISION HISTORY			BASIC PART NO: 7018079		DRN: P. TOUSIGNANT		DATE: 30-JUL-81		DIGITAL	
ENG	ECO NUMBER	REV	SECTION A OF A		CHK'D: A. ROCHA		DATE: 30-JUL-81		TITLE PARTS LIST	
---	INITIAL	XA	SECTION. VARIATION INDEX						CONSOLE ASSEMBLY	
---	INITIAL	A	[A] 00							
			[B]		DES.ENG.: R. MORIN		DATE: 30-JUL-81			
			[C]							
			[D]		RESP.ENG.: R. MORIN		DATE: 30-JUL-81		DOCUMENT NUMBER	
			[E]						SIZE CODE NUMBER	
			[F]		MFG.ENG.: S. CASTIGLIONE		DATE: 30-JUL-81		K PL 7018079-0-0	
			ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:				REV	
			E-AD-7018079-0-0		E-UA-11730-2-0				A	
									FILE NAME: 21827A.PLS	
									EDIT # 16	
THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.										
COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION										

[illegible]

COMPONENT SIDE VIEW



NOTES:
1. STEP & REPEAT 2ML33.
2. COMPONENT ORIENTATION MARK.
3. JUMPER W2 IS USED ON VARIATION -01, W3 IS USED ON -00.
4. MOUNT S2 WITH SPRING LOAD POSITION TOWARD S1.

STEP	Y AXIS	Z AXIS	STEP	TIMES
REPEAT	X AXIS	5.250	STEP	1

NOTES (CONT.)
5. W1 IS NOT INSTALLED.
6. REMOVE A SMALL SECTION OF THE MOUNTING BRACKET OF S2 BEFORE MOUNTING TO PC BOARD.

ETCH REV.	A

SIGNATURES	DATE	TITLE
ORIN. <i>[Signature]</i>	10-8-80	digital TITLE CONSOLE BOARD
CHK'D. <i>[Signature]</i>	10-8-80	
RECH. ENG. <i>[Signature]</i>	10-8-80	
PROD. <i>[Signature]</i>	10-8-80	
SCALE 2:1		SIZE CODE
SHT. 1 OF 1		NUMBER
NEXT HIGHER ASSY: B-DD-5414438-0		REV

AUTOMATED BY PRTLST,3P(44)

P A R T S L I S T

SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION		REFERENCE DESIGNATOR
					00	01	
1	1	D-MD-5014437-0-0	5014437-00	CONSOLE MODULE	1	1	
2	2		1110864-00	LED 2MCD010MA	4	4	D1-D4
3	3		1213506-06	HEADER 24POS RT ANGLE	1	-	J2
4	4		1218038-00	SW,ROT 1P 2.0A 6POS 1SECTION	1	1	S1
5	5		1216179-00	SW,LEVER 1P ON/OFF/ON	1	1	S2
6	6		1300229-00	100.0 .25 W 5.0 % CC	3	3	R1,R2,R9
7	7		1300316-00	470.0 .25 W 5.0 % CC	4	4	R3,R5-R7
8	8		1601562-00	1.0 UH 10% 475MA #DD1.00	1	1	L1
9	9		7413127-00	LED HOLDER REWORK	1	1	
10	10		9006555-00	NUT,HEX , 2-56X3/16AF X 1/	2	2	
11	11		9009236-01	SCREW,TAPPING,TYPE F,PAN ,PHIL,	3	3	
12	12		9009321-00	LOCK TITE, SCREW LOCK, 10CC PER	A/R	A/R	
13	13		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	2	-	W3,W4
			CONT		-	2	W2,W4
14	14		1213506-08	HEADER 24POS RT ANGLE	-	1	J1

REVISION HISTORY			BASIC PART NO: 5414438			D I G I T A L		
ENG:	ECO NUMBER	REV	SECTION A OF A	DRN:	P.GROSSE	DATE:	09-JUL-80	
---	INITIAL	IA	SECTION,VARIATION INDEX	CHK'D:	F.GAROFALO	DATE:	09-JUL-80	TITLE PARTS LIST
			[A] 00,01					11/730 CONSOLE MODULE
			[B]	DES,ENG:	D.LANDRY	DATE:	09-JUL-80	
			[C]					DOCUMENT NUMBER
			[D]	RESP,ENG.:	D.LANDRY	DATE:	18-SEP-80	
			[E]					SIZE CODE NUMBER
			[F]	IMFG,ENG.:	J.CONSIDINE	DATE:	8-OCT-80	K PL 5414438-0-DBP
			[H]					REV
			[J]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:
			[K]	ID-UA-5414438-0-0				21273A,PLS
			[L]					EDIT #
			[M]					32
			[N]					
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981, DIGITAL EQUIPMENT CORPORATION "								

TW

THE DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION

LEGEND

J1	J2	W1	W2	W3	W4	VARIATION	ASSEMBLY NUMBER
OUT	IN	OUT	OUT	IN	IN	11/730-AA	54-14438-00 SEE NOTE 1
IN	OUT	OUT	IN	OUT	IN	11/730-ZA	54-14438-01 SEE NOTE 1

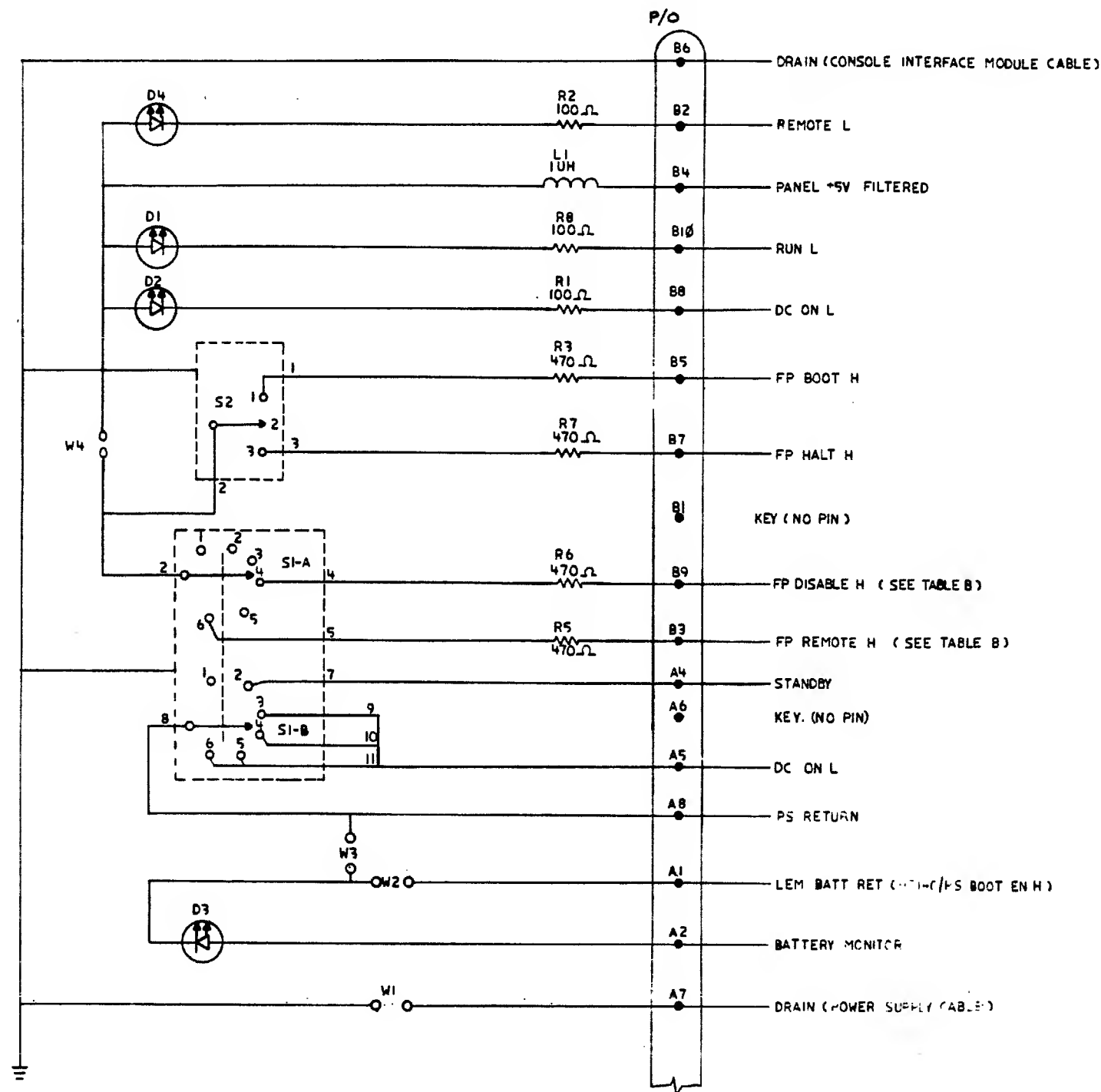
NOTE:
1. FOR PICTORAL PINNING OF J1 AND J2 SEE D-UA-5414438-0-0.

TABLE A

POSITION	SWITCH 1A DESCRIPTION	SWITCH 1B DESCRIPTION
1	OFF	OFF
2	NONE	STANDBY
3	LOCAL	DC ON
4	LOCAL DISABLE	DC ON
5	REMOTE DISABLE	DC ON
6	REMOTE	DC ON

TABLE B

DISABLE	REMOTE	SWITCH 1A POSITION
0	0	1
0	0	2
0	0	3
1	0	4
1	1	5
0	1	6

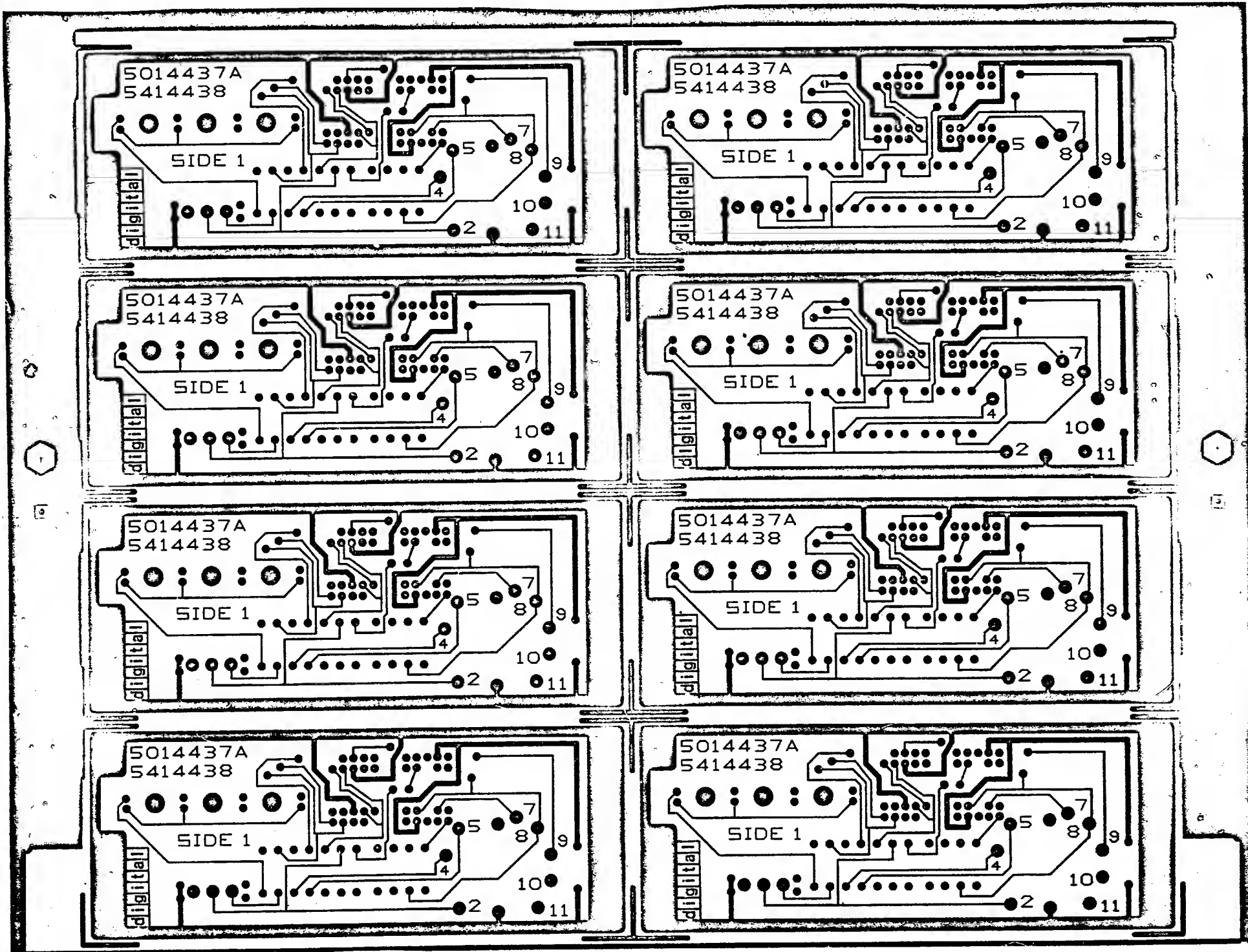


DATE	5-18-80	TITLE	digital
DATE	8-29-80	CONSOLE MODULE	
DATE	10-8-80		
DATE	12-9-80		
DATE	90-8-80		
DUA-5414438-0-0		DOCUMENT NUMBER	D CS 5414438-0-1 A
		SCALE	1/1
		REV	1

ALL DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND ARE NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

1934

1950 FEDERAL BUREAU OF INVESTIGATION



0	0	5014437:0-0	115
---	---	-------------	-----

B

11.

REVISION HISTORY		
DATE	ECO NUMBER	REV

DATE	8-27-80	TITLE	digit
DRAWN BY	8-27-80		
TESTED BY	10-8-80	ETCH CUT DRAWING	
REAPPROVED BY	10-8-80		
WELDING	10-9-80	DOCUMENT NUMBER	
WELDING		SIZE	CODE
		D	E
		5014437	0-0 A
		SCALE	1/2"

8

DEC 5014437-0-0

6

5

4

3

2

1

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF THE U.S. GOVERNMENT AND ARE NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE U.S. GOVERNMENT.

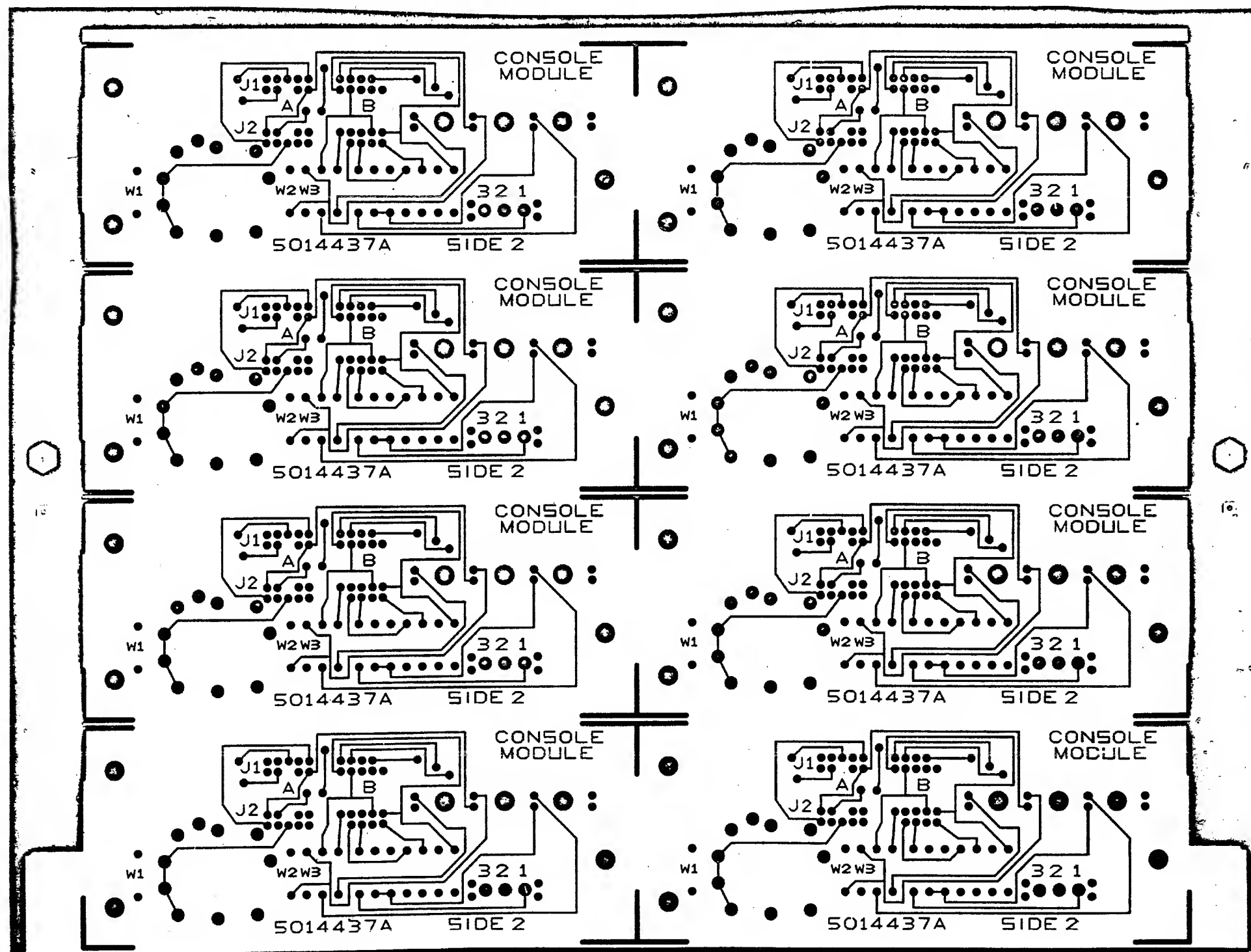
1980

D

C

B

A



D

C

B

A

REVISION HISTORY		
DATE	ECO NUMBER	REV

CDD 137A

8

7

6

5

4

3

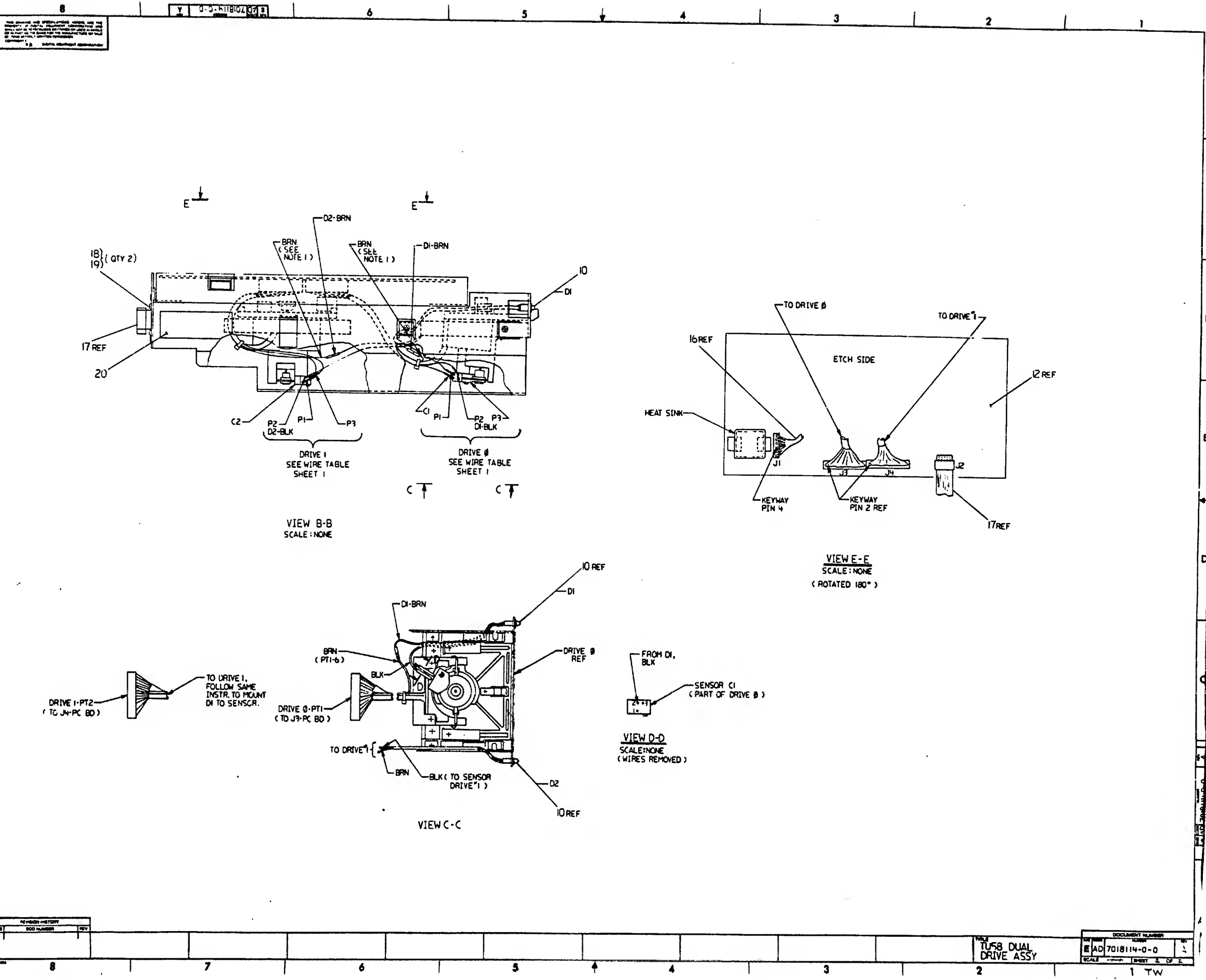
2

1

TITLE

ETCH CUT DRAWING

DOCUMENT NUMBER		
SIZE	NUMBER	REV
DEC	5014437-0-0	A
SCALE	2-1	SHEET 2 OF 2



REVISION HISTORY		
DATE	REV	DESCRIPTION

TU58 DUAL
DRIVE ASSY

DOCUMENT NUMBER	
AD 7018114-0-0	
SCALE	SHEET 1 OF 2

1 TW

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A1 OF A1

LINE ITEM DOCUMENT NUMBER PART NUMBER DESCRIPTION QUANTITY PER VARIATION
00

1	1	C-IA-7018164-0-0	7018164-00	TU ENCLOSURE RIVETED ASSY	1
2	2	D-IA-7423933-0-0	7423933-00	TU58 PLATFORM	1
3	3	B-MD-7424846-0-0	7424846-00	BRACE, CENTER, TU	1
4	4	D-AD-7015510-0-0	7015510-00	CARTRIDGE DRIVE	1
5	5		9009701-00	SCREW, PAN, PHIL, SEMS 6-32X .312L	1
6	6		9009984-02	SCREW, SEMS, PHILLIPS PAN HD. 6-	1
7	7		9010107-00	GUIDE, CARD 11" LG.	1
8	8		9009284-00	STANDOFF, HEX, M/F 4-40	1
9	9	BLANK		*** THIS ITEM IS NOT USED ***	1
10	10	A-PS-1118799-0-0	1118799-00	LED 15.0MCD320MA 3.0V	1
11	11	BLANK		*** THIS ITEM IS NOT USED ***	1
12	12	E-UA-5413489-0-0	5413489-00	TU58 ELECTRONICS SERIAL	1
13	13	BLANK		*** THIS ITEM IS NOT USED ***	1
14	14		9009643-02	SCREW, PAN, SLOT, SEMS 4-40X .250L	1
15	15	D-MD-7424848-0-0	7424848-00	PLATE, BOTTOM, TU	1
16	16	D-IA-7018166-0-0	7018166-18	TU BULKHEAD PWR CABLE	1
17	17	C-IA-7016305-0-0	7016305-0K	CABLE, SERIAL TU58	1
18	18		9006013-01	SCREW, PAN, PHIL 4-40K 1/2 SS	1
19	19		9009990-00	NUT, KEP 4-40 X1/4 AF	1
20	20		9009255-01	LABEL, POWER, SUPPLY, 2-7/8" LG X	1
21	21	B-IA-7018521-0-0	7018521-00	JUMPER, DRIVE/DRIVE	1
22	22	B-IA-7018522-0-0	7018522-00	JUMPER, DRIVE/GND	1
23	23	B-IA-7018523-0-0	7018523-00	JUMPER, GND/GND	1
24	24		9008185-00	NUT, KEP 6-32X 1/4 AF	1

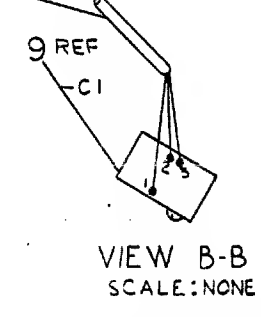
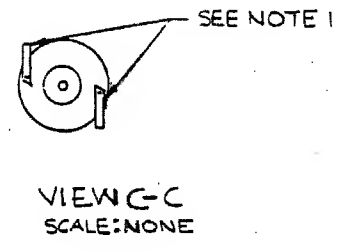
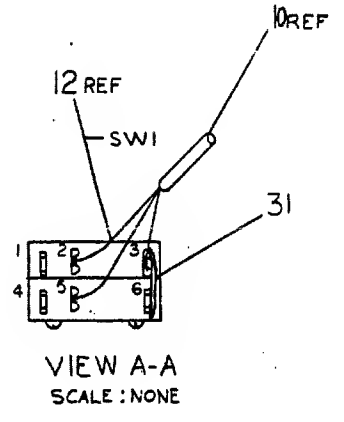
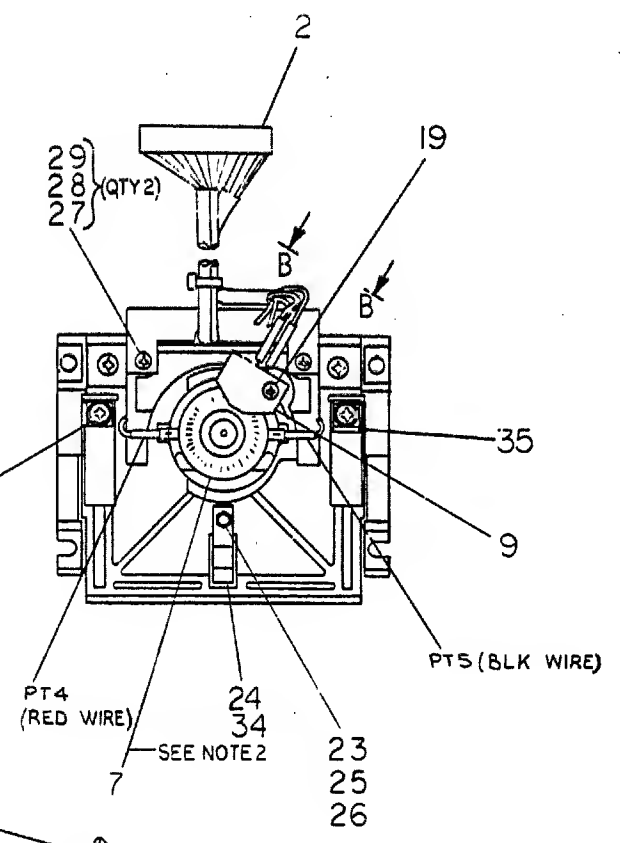
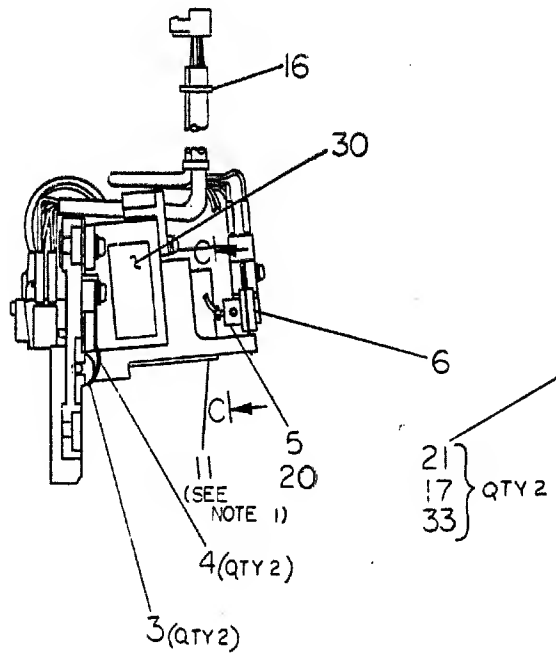
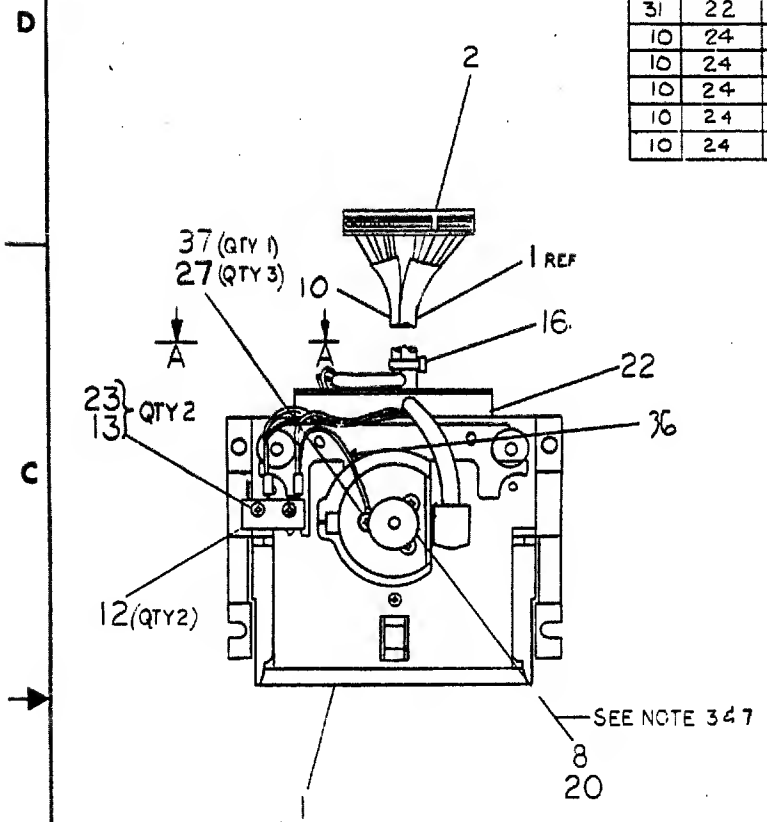
REVISION HISTORY		BASIC PART NO: 7018114		DRN: A. ROCHA		DATE: 23-JUL-81		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: R. MORIN		DATE: 23-JUL-81		TITLE PARTS LIST	
---	INITIAL	A	SECTION. VARIATION INDEX					TU58 DUAL DRIVE ASSY	
			[A] 00						
			[B]	DES.ENG.: R. MORIN		DATE: 23-JUL-81			
			[C]	RESP.ENG.: R. MORIN		DATE: 23-JUL-81		DOCUMENT NUMBER	
			[D]					SIZE CODE NUMBER REV	
			[E]	MFG.ENG.: S. CASTIGLIONE		DATE: 23-JUL-81		K PL 7018114-0-DBP A	
			[F]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #	
				E-AD-7018114-0-0		E-UA-11730-Z-0		21352A.PLS 20	
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"									

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1978, DIGITAL EQUIPMENT CORPORATION

WIRE TABLE							
ITEM	DESCRIPTION	FROM		TO		REMARKS	
NO	AWG	COLOR	CONN	WITH	CONN	WITH	
10	24	YEL	PT-2	---	SWI-5	---	
10	24	GRY	PT-1	---	SWI-2	---	
10	24	VIO	PT-3	---	SWI-3	---	
31	22	---	SW-6	SOLD	SWI-3	SOLD	BUS WIRE
10	24	GRN	PT-6	---	CI-3	---	
10	24	BRN	PT-8	---	CI-2	---	
10	24	BLU	PT-7	---	CI-1	---	
10	24	BLK	PT-5	---	MOTOR-	---	
10	24	RED	PT-4	---	MOTOR+	---	TWISTED PAIR

- ASSEMBLE ITEM*5,6 & 9 USING $5 \pm .5$ IN LBS TORQUE.
- CARTRIDGE WITHDRAWAL FORCE SHALL BE A MAXIMUM OF 4.8 LBS. AND WHEN AN EXCESS FORCE OF 1 LB. IS APPLIED TO THE DRIVE ROLLER (OUTWARD) AND IS REMOVED, THE CARTRIDGE SHALL STILL BE AGAINST THE DRIVE REFERENCE STOPS.
- HEAD SKEW TO BE WITHIN $6' \pm 0'6'$ AFTER FINAL ASSY.

- NOTES:
- MOTOR TO BE ROTATED TO PROVIDE EASIEST ACCESS TO TERMINALS PT4, PT5. MOTOR LEADS MAY BE BENT AS SHOWN IF NECESSARY TO CLEAR MOTOR MOUNT.
 - CODE WHEEL ITEM #7 MUST ROTATE FREELY WITHOUT RUBBING IN SLOT IN OPTICAL SENSOR ITEM #9. TIGHTEN ITEM #20 TO $3.5 \pm .5$ IN LBS. SET DRIVE ROLLER, ITEM #8, TO BE FLUSH WITH END OF MOTOR SHAFT ITEM #11. TIGHTEN ITEM #20 TO $3.5 \pm .5$ IN LBS.
 - TIGHTEN ITEMS 13 & 25 TO $2.0 \pm .5$ IN LBS. TIGHTEN ITEMS 15, 17 & 27 TO $3.5 \pm .5$ IN LBS. TIGHTEN ITEM 21 TO $5 \pm .5$ IN LBS. WHEN CARTRIDGE IS INSERTED INTO DRIVE THE FORCE ON THE DRIVE ROLLER (ITEM #8) IS TO BE $1 \text{ LB} \pm .1$.



CAUTION: OFF SHEET PARTS LIST K-PL-7015510-0-DBP

REV	DATE	BY	CHK	DESCRIPTION
1	10/1/78	D. WARREN	D. WARREN	INITIAL RELEASE
2	10/1/78	D. WARREN	D. WARREN	REVISION
3	10/1/78	D. WARREN	D. WARREN	REVISION
4	10/1/78	D. WARREN	D. WARREN	REVISION
5	10/1/78	D. WARREN	D. WARREN	REVISION
6	10/1/78	D. WARREN	D. WARREN	REVISION
7	10/1/78	D. WARREN	D. WARREN	REVISION
8	10/1/78	D. WARREN	D. WARREN	REVISION

THIRD ANGLE PROJECTION		QUANTITY & VARIATION		DESCRIPTION		DWG./PART NO.		ITEM NO.
REMOVE BURRS AND BREAK SHARP CORNERS		DO NOT SCALE DWG		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CLASS OF ACCURACY		
MATERIAL SEE PARTS LIST		FINISH		SURFACE QUALITY		MICROINCHES		
SCALE 1/1		SHEET 1 OF 1		PREFERRED		0.012 0.010 0.008 0.006 0.005 0.004 0.003 0.002 0.001		
FIRST USED ON		TUS8-KA		TITLE		CARTRIDGE DRIVE		
SIZE		CODE		NUMBER		REV.		
D AD		7015510-0-0		F				

AUTOMATED BY PRTLST.3P(44)

P A R T S L I S T

SHEET A1 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
------	------	-----------------	-------------	-------------	------------------------

1	1	D-IA-7016558-0-0	7016558-00	HEAD MOUNTING ASSY	1
2	2		1216144-00	COVER, CONN FOR 12-15815-	1
3	3	C-MD-7420645-0-0	7420645-01	LOCK, ROLLER	1
4	4	C-MD-7423353-0-0	7423353-00	SPRING, BEVELED	1
5	5	C-MD-7420651-0-0	7420651-00	HUB, ENCODER	1
6	6	B-MD-7420652-0-0	7420652-00	CLAMP	1
7	7	C-MD-7420649-0-0	7420649-00	WHEEL, CODE	1
8	8		1216231-00	ROLLER ASSEMBLY, DRIVE	1
9	9		1915721-00	PHOTO SWITCH W/LED &	1
10	10	D-IA-7016017-0-0	7016017-00	CABLE, TAPE DRIVE	1
11	11		1215602-00	MOTOR, 12VDC SERVO	1
12	12		1209782-00	SW, MICRO 1P .1A 2125V, AG "CROSS	1
13	13		9008025-01	SCREW, PAN, PHIL 2-56X 5/8 SS	1
14	14		9006009-02	*** THIS ITEM IS NOT USED ***	1
15	15		9008301-01	SCREW, PAN, PHIL 4-40X 1/4 SS	1
16	16		9007031-00	TIE, CABLE BUNDL. DIA 0- 3/4"=101	1
17	17		9007801-00	WASHER, LOCK, S.S. #6	1
18	18	B-MD-7422968-0-0		*** THIS ITEM IS NOT USED ***	1
19	19		9006013-01	SCREW, PAN, PHIL 4-40X 1/2 SS	1
20	20		9006278-10	SCREW, SET, SKT, 4-40X 1/8	1
21	21		9006021-01	SCREW, PAN, PHIL 6-32X 5/16 SS	1
22	22	C-MD-7421491-0-0	7421491-00	CLAMP, CABLE	1
23	23		9006631-00	WASHER, LOCK, INT., .1800D X .096ID	1
24	24	C-MD-7423355-0-0	7423355-00	SPRING, STRAIGHT SUPPORT	1
25	25		9006001-02	SCREW, FLAT, PHIL, 2-56X 1/4	1
26	26		9006555-00	NUT, HEX 2-56X3/16AF X 1/	1
27	27		9006010-01	SCREW, PAN, PHIL 4-40X 5/16 SS	1
28	28		9006655-00	WASHER, FLAT, .312 O.D. X .125 I	1
29	29		9006688-00	WASHER, LOCK, S.S. #4	1
30	30		3616582-00	LABEL, SERIAL TU58-XA	1

REVISION HISTORY			BASIC PART NO: 7015510		DRN: D. WARREN		DATE: 24-APR-78		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: D. HEALY	DATE: 5-DEC-78	TITLE PARTS LIST				
D.W.	TU58XA-ML003	C	SECTION. VARIATION INDEX	DES.ENG.: M. LEIS <td>DATE: 5-DEC-78<td colspan="5">CARTRIDGE DRIVE</td></td>	DATE: 5-DEC-78 <td colspan="5">CARTRIDGE DRIVE</td>	CARTRIDGE DRIVE				
DW	7015510-ML002	D	[A] 00	RESP.ENG.: M. LEIS <td>DATE: 5-DEC-78<td colspan="5">DOCUMENT NUMBER</td></td>	DATE: 5-DEC-78 <td colspan="5">DOCUMENT NUMBER</td>	DOCUMENT NUMBER				
DW	TU58XA-ML004	E	[B]	MFG.ENG.: R. TAYLOR <td>DATE: 5-DEC-78<td>SIZE</td><td>CODE</td><td>NUMBER</td><td>REV</td></td>	DATE: 5-DEC-78 <td>SIZE</td> <td>CODE</td> <td>NUMBER</td> <td>REV</td>	SIZE	CODE	NUMBER	REV	
			[C]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	K	PL	7015510-0-DBP	E	
			[D]					FILE NAME:	EDIT #	
			[E]					Z1610E.PLS	13	
			[F]							

"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION
31	31		9107560-01	WIRE, BUSS, 22AWG	A/R
32	32		9006656-00	*** THIS ITEM IS NOT USED ***	1
33	33	C-MD-7423354-0-0	7423354-00	WASHER, LEAF SPRING	2
34	34	B-MD-7423356-0-0	7423356-00	BUTTON, SUPPORT	1
35	35		9007113-01	TERM QUICK .152DIA .250TAB BR/T	1

D I G I T A L										TITLE										SECTION A OF A										SIZE										CODE										DOCUMENT NUMBER										REV									
										CARTRIDGE DRIVE																				K										PL										7015510-0-DBP										E									

DRAWING NO.	NO. OF SHTS.	PART NO.	DESCRIPTION	REVISIONS																									
B-DD-5413489-0	1		SERIAL TU58	*	A	B	C	D	E	F	H																		
E-UA-5413489-0-0	3		SERIAL TU58	C	D	D	E	F	F	H	J																		
D-CS-5413489-0-1	2		SERIAL TU58	C	D	D	E	F	F	H	J																		
E-MD-5013488-0-0	4		DRILL & ETCH DRAWING	C	D	D	D	D	D	E	E																		
		5013488	ETCHED BOARD	D	E	E	E	E	E	F	F																		
K-PL-5413489-0-DBP	-		PARTS LIST DATA BASE (5413489)	C	D	D	E	F	F	H	J																		
K-PC-5413489-0-DBC	-		P.C. DESIGN DATA BASE (5413489)	A	B	B	B	B	B	C	C																		
E-EC-5013488-0-0	2		ETCH CUT DRAWING	-	-	-	-	-	-	H	H																		
E-UA-5413489-0-0	3		SERIAL TU58				C1	C1	C1	C1	C1	C1																	
D-CS-5413489-0-1	2		SERIAL TU58				C1	C1	C1	C1	C1	C1																	
K-PL-5413489-0-DBP			PARTS LIST DATA BASE				C1	C1	C1	C1	C1	C1																	
		5013488	ETCH BOARD				D	D	D	D	D	D																	
E-UA-5413489-0-0	3		SERIAL TU58							F1	F1	F1																	
D-CS-5413489-0-1	2		SERIAL TU58							F1	F1	F1																	
K-PL-5413489-0-DBP			PARTS LIST DATA BASE (5413489)							F1	F1	F1																	
		5013488	ETCH BOARD							E	E	E																	

NOTES:

SPECIAL REVISIONS: FOUND ON SHEET 2

REVISIONS

DATE	CHG NO.	REV.	A	B	C	D	E	F	H
8/1/78		*							
11/2/78	ML001								
1/79	ML002								
6-79	ML003								
11-79	ML004								
7-80	ML005								
9/10	ML006								
2/82	ML007								

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

1978

DIGITAL EQUIPMENT CORPORATION

USED ON OPTION/MODEL

TU58

DRN. P. BOSSMAN

6/14/78

CHK'D

2/7/79

ENG. M. J. J.

8/1/78

PROD. Peter Barton

8-1-78

TITLE

SERIAL TU58

SIZE

CODE

NUMBER

REV.

B

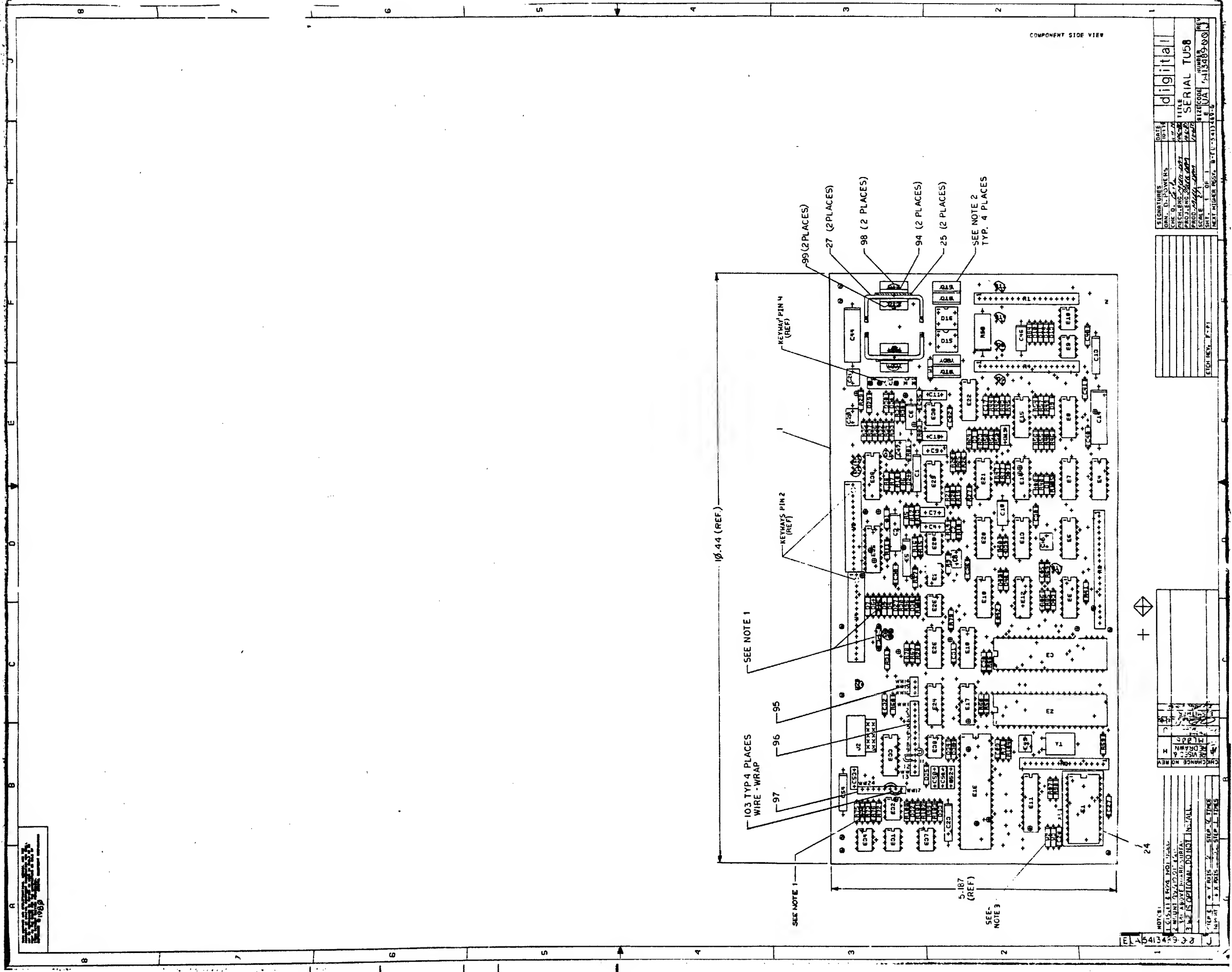
DD

5413489-0

H

SHEET 1 OF 1

1000



SHEET A1 OF A3

REVISION HISTORY			BASIC PART NO: 5413489		DRN: DAN MUTNANSKY		DATE: 22-MAY-78		D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	P. BOSSMAN	DATE: 6-JUNE-78	TITLE	PARTS LIST		
---	INIT	C	SECTION.VARIATION INDEX	CHK'D:	P. BOSSMAN	DATE: 6-JUNE-78	SERIAL TU58			
PB	5413489-ML001	D	[A] 00	DES.ENG:	MIKE LEIS	DATE: 22-MAY-78				
M.L	5413489-ML003	E	[B]	RESP.ENG.:	M. LEIS	DATE: 6-JUNE-78				
ML	5413489-ML004	F	[C]	MFG.ENG.:	P. BARTON	DATE: 6-JUNE-78	K	PL	5413489-0-DBP	H
D.M	5413489-ML006	H	[D]	ASSEMBLY NUMBER:	E-UA-5413489-0-0	TOP DOCUMENT NUMBER:	TU58	FILE NAME:	Z0582H.PLS	EDIT #
			[E]							38
			[F]							
			[G]							
			[H]							
			[I]							
			[J]							
			[K]							
			[L]							
			[M]							
			[N]							

*THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

COPYRIGHT (C) 1980. DIGITAL EQUIPMENT CORPORATION

AUTOMATED BY FRTLST.2D(16)

PARTS LIST

SHEET A2 OF A3

LINE	ITEM	DOCUMENT NUMBER
------	------	-----------------

PART NUMBER

DESCRIPTION

QTY PER VARIATION

00

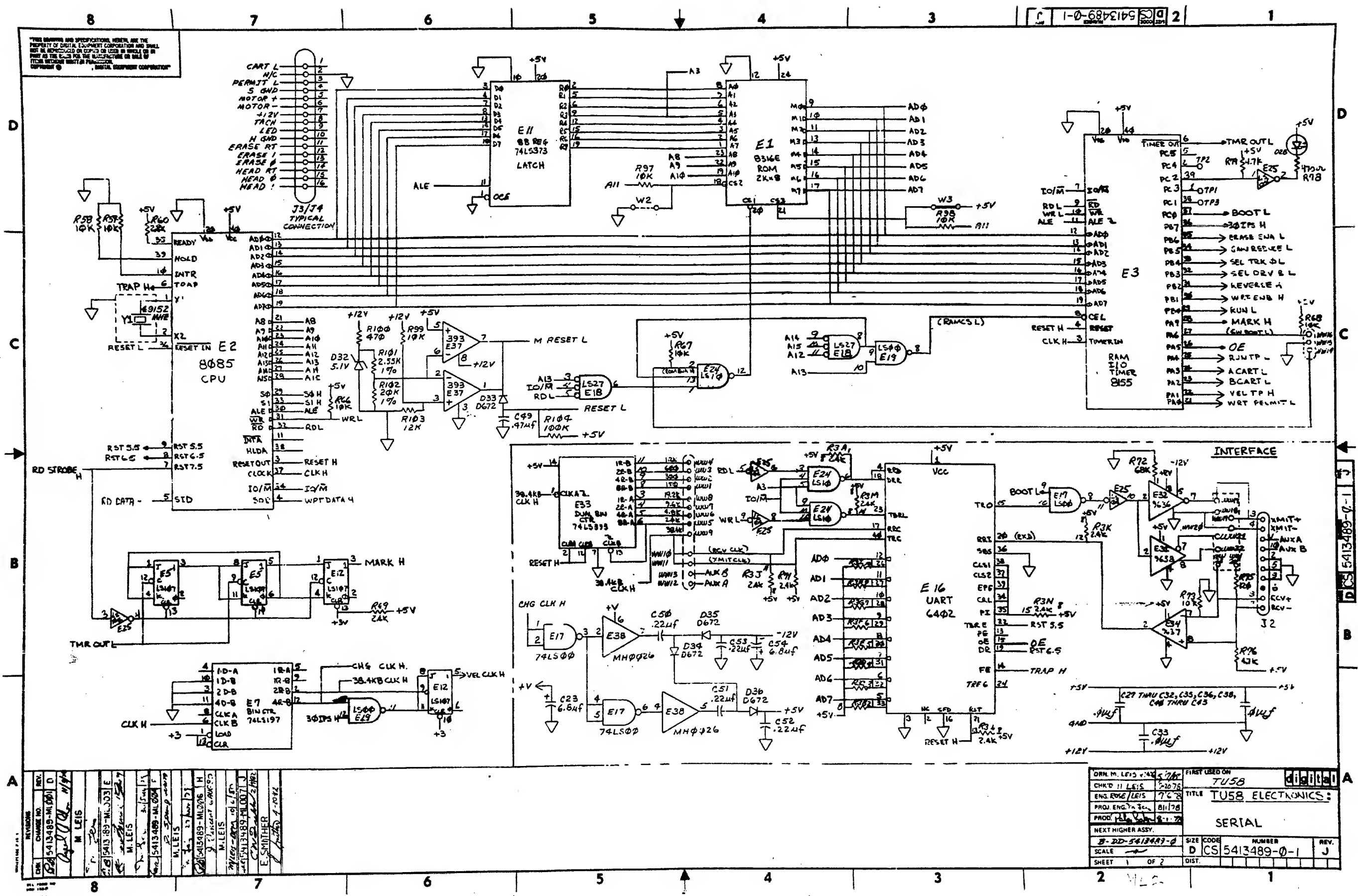
REFERENCE DESIGNATOR

30	30	1300316-00	470.0		.25 W 5.0 %	CC	5	R5,R55,R100,R78,R84
31	31	1300365-00	1.0	K	.25 W 5.0 %	CC	2	R10,R18
32	32	1300295-00	***	THIS	ITEM IS NOT USED	***	-	
33	33	1300447-00	4.70	K	.25 W 5.0 %	CC	8	R11,R19,R20,R25,R54,R79,R76,R105
34	34	1300479-00	10.0	K	.25 W 5.0 %	CC	21	R9,R22,R24,R26,R44,R46,R50,R58, R59,R66,R67,R68,R80,R33,R36,R96, R86,R73,R97-R99
35	35	1301322-00	180.0		.25 W 5.0 %	CC	1	R31
36	36	1301327-00	68.0	K	.25 W 5.0 %	CC	1	R72
37	37	1300432-00	3.0	K	.25 W 5.0 %	CC	1	R6
38	38	1301969-00	22.0		.25 W 5.0 %	CC	1	R29
39	39	1302092-00	220.0	K	.25 W 5.0 %	CC	1	R51
40	40	1302177-00	47.0	K	.25 W 5.0 %	CC	2	R14,R23
41	41	1302388-00	2.0	K	.25 W 5.0 %	CC	5	R27,R28,R34,R37,R85
42	42	1302391-00	20.0	K	.25 W 5.0 %	CC	1	R83
43	43	1302394-00	30.0	K	.25 W 5.0 %	CC	2	R52,R106
44	44	1302396-00	150.0	K	.25 W 5.0 %	CC	2	R8,R81
45	45	1302398-00	470.0	K	.25 W 5.0 %	CC	4	R7,R21,R45,R57
46	46	1302941-00	14.70	K	.25 W 1.0 %	RN55D-F10	3	R13,R16,R56
47	47	1303177-00	2.40	K	.25 W 5.0 %	CC	8	R17,R30,R41,R42,R43,R60,R69,R71
48	48	1303312-00	10.0	K	.25 W 1.0 %	RN55D-F10	2	R12,R15
49	49	1305324-00	4.99	K	.25 W 1.0 %	RN55D-F10	4	R38,R39,R47,R49
50	50	1309386-00	5.60	M	.25 W 5.0 %	CC	1	R40
51	51	1001610-01	***	THIS	ITEM IS NOT USED	***	-	
52	52	1311466-00	.20		2.0 W 5.0 %	WW	1	R53
53	53	1313596-00	20.0	K	.25 W 1.0 %	RN55D-F10	2	R77,R102
54	54	1315660-00	R NETWORK	16-10K	1-4.7K 20PIN		1	R2
55	55	1315661-00	R NETWORK	MULTI-VALUE			2	R1,R4
56	56	1315662-00	R NETWORK	14-2.4K	10.0 % 15PIN		1	R3
57	57	1503409-00	DEC6534D	PNP	310MW SI 40 90		2	Q2,Q4
58	58	1509142-00	DEC4250	PNP	200MW SI 40250		1	Q1
59	59	1509338-00	DEC6531B	NPN	310MW SI 40 90 P		6	Q3,Q5,Q8,Q11,Q14,Q17
60	60	1510421-00	D	44CB	NPN 30WT SI 60 20		4	Q6,Q7,Q12,Q13
61	61	1510598-00	DEC45CB	PNP	27WT SI 60 20 Y		4	Q9,Q10,Q15,Q16
62	62	1812396-06	XTAL	4.9152	MHZ		1	Y1
63	63	1910282-00		301AN	OP AMP		1	E30
64	64	1910645-00		75452	DRIVER,PERIPH,DUAL,		4	E9,E10,E26,E27
65	65	1910741-00		7406	INVERTER GATE-HEX 1I		1	E8
66	66	1911242-00	***	THIS	ITEM IS NOT USED	***	-	
67	67	1912107-00		324	OP AMP,QUAD		1	E15
68	68	1912108-00		339	VOLT CMPRTR,QUAD		1	E29
69	69	1912799-00		LS00	NAND-GATE-QUAD 2IN,P		2	E17,E19
70	70	1912801-00		LS02	NOR-GATE-QUAD 2IN		1	E13
71	71	1912803-00		774LS04	INVERTER GATE, HEX		2	E6,E25
72	72	1912807-00		LS10	NAND GATE-TRIPLE 3IN		1	E24
73	73	1912813-00		LS27	NOR GATE-TRIPLE 3IN		1	E18
74	74	1912832-00		LS107	FF-JK DUAL MASTER/SL		2	E5,E12
75	75	1912857-00		LS197	COUNTER,BINARY,PRESET		1	E7

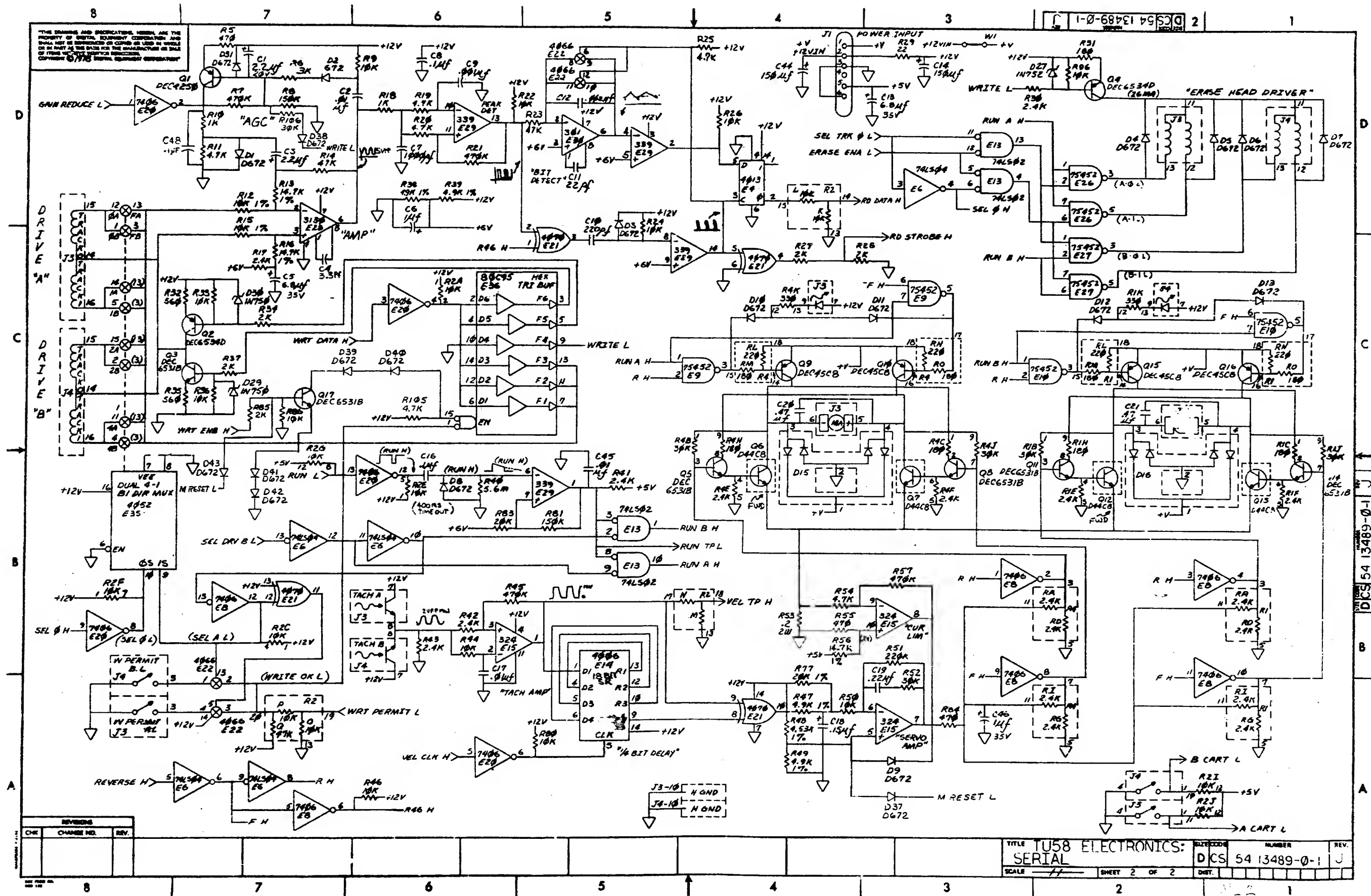
D	I	G	I	T	A	L	TITLE	SERIAL TU58	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	5413489-0-DBP	H

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
76	76	1914451-00	74LS393 COUNTER,BINARY,4BIT	1	E33
77	77	1914466-00	3130E OP AMP MOS/FET IN,CM	1	E28
78	78	1915219-00	LS373 FF-D OCTAL-TRANSPARE	1	E11
79	79	1915415-00	9636 DRIVER,DUAL,EIA RS-	1	E32
80	80	1915416-00	9637 RECEIVER,DUAL,RS-42	1	E34
81	81	1915417-00	9638 DRIVER,DUAL,EIA RS-	1	E31
82	82	2113605-00	4006B SHIFT REG,18 STAGE	1	E14
83	83	2113609-00	4013B FF-D DUAL W/SET/RESE	1	E4
84	84	2113630-00	4052B MULTIPLEXER 4CHAN DI	1	E35
85	85	2113632-00	4065B BILATERAL SWITCH-QUA	1	E22
86	86	2113634-00	4070B X-OR GATE-QUAD CMOS	1	E21
87	87	2113937-00	UART 125K BUAD	1	E16
88	88	2114663-00	MM 80C95 BUFFER-GATE-HEX TRIS	1	E36
89	89	2114963-00	UP,8-BIT NMOS	1	E2
90	90	2114964-00	RAM 2048 MOSJ-STATIC	1	E3
91	91	23089E2-00	E2-01	1	E1
92	92	1212619-07	HEADER.156 6POS STRAIGHT	1	J1
93	93	9009185-00	JUMPER, WIRE, INSULATED, BLACK B	2	W1,W3
94	94	9010057-00	WASHER, INSULATING SHOULDER FOR	2	
95	95	1215816-01	HEADER.100 3POS STRAIGHT	1	
96	96	1215816-02	HEADER.100 13POS STRAIGHT	1	
97	97	1215816-03	HEADER.100 8POS STRAIGHT	1	
98	98	9006011-01	SCREW,PAN,PHIL 4-40X 3/8 SS	2	
99	99	9006557-00	NUT,KEP , 4-40X 1/4 AF	2	
100	100	1100124-00	1N 750A VZ= 4.7 5% .40W P	2	D29,D30
101	101	1301890-00	560.0 .25 W 5.0 % CC	2	R32,R35
102	102	1313840-00	4.53 K .25 W 1.0 % RN55D-F10	1	R48
103	103	9105740-55	WIRE(WRAP)30AWG UL1423 A/R	2	
104	104	1012084-03	150 MFD 15V +75-10% AL EL	2	C44,C14
105	105	9107256-11	*** THIS ITEM IS NOT USED ***	-	
106	106	1910741-01	7406N BUFFER,HEX	1	E20
107	107	5414232-00	*** THIS ITEM IS NOT USED ***	-	
108	108	1310633-00	2.55 K .25 W 1.0 % RN55D-F10	1	R101
109	109	1300488-00	12.0 K .25 W 5.0 % CC	1	R103
110	110	1302466-00	100.0 K .25 W 5.0 % CC	1	R104
111	111	1105871-00	1/4M5.1A21 = 5.1 1% .25W N	1	D32
112	112	1914156-00	LM 393 VOLT.COMPARATOR DUAL	1	E37
113	113	1912098-00	0026 DRIVER,MOS CLOCK,2	1	E38
114	114	1010274-01	.22 MFD 50V +80-20% Z5U CER	4	C50-C53
115	115	1010279-00	.47 MFD 25V 20% CER	3	C20,C21,C49

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							SERIAL TU58		K	PL	5413489-0-DBP	H

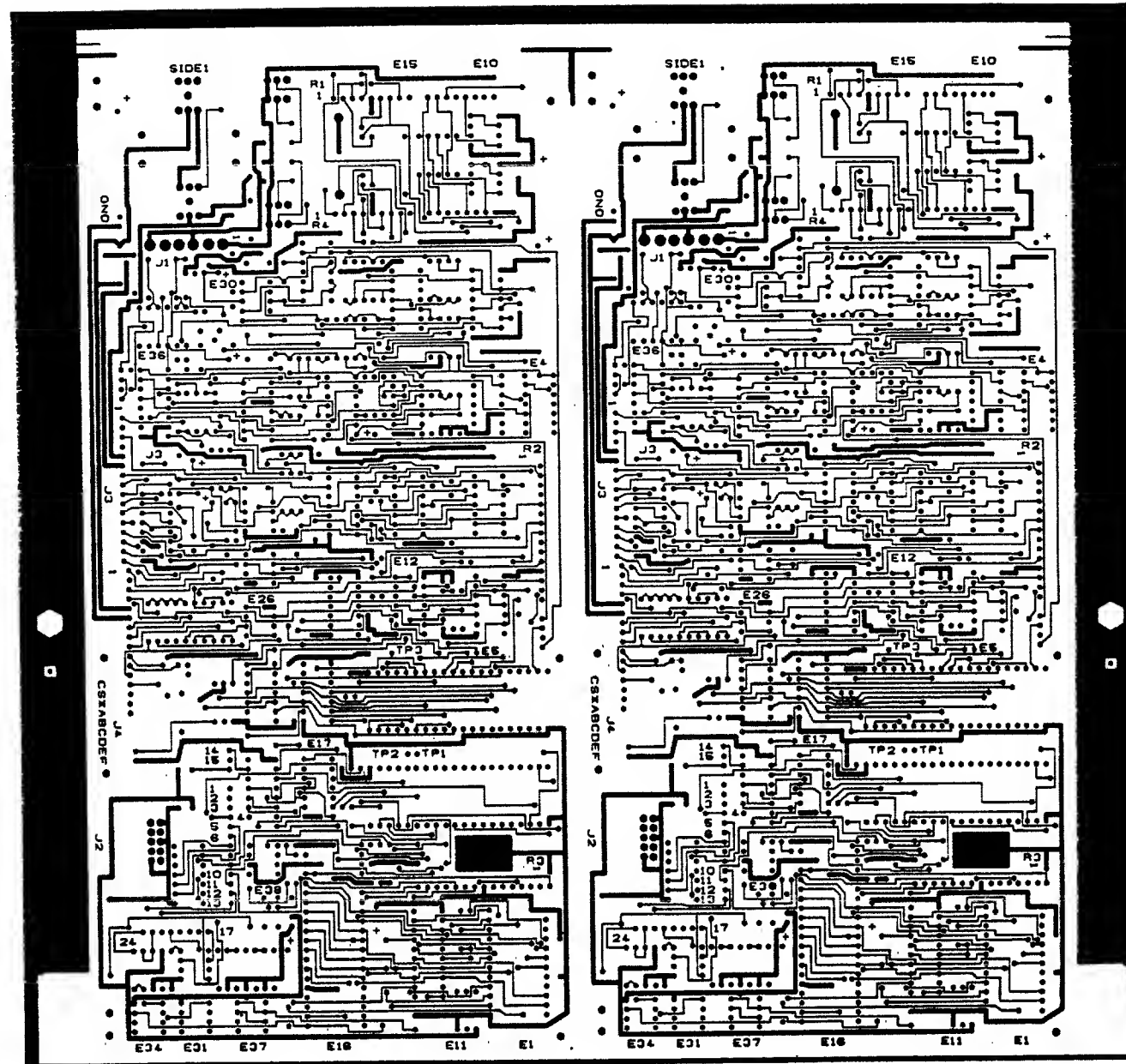


DRN. M. LEIS	5/78	FIRST USED ON	TU58
CHK'D. H. LEIS	7/78	TITLE	TU58 ELECTRONICS:
ENG. ROSE/LEIS	7/78	PROJ. ENG. A. J.	8/1/78
PROD. J. J.	8/1/78	SERIAL	
NEXT HIGHER ASSY.		SIZE CODE	D CS 5413489-0-1
SCALE		NUMBER	J
SHEET 1 OF 2		DIST.	



REVISIONS		
CHK	CHANGE NO.	REV.

TITLE TU58 ELECTRONICS: SERIAL		NUMBER DCS 54 13489-0-1		REV. J	
SCALE 1/1		SHEET 2 OF 2		DST	

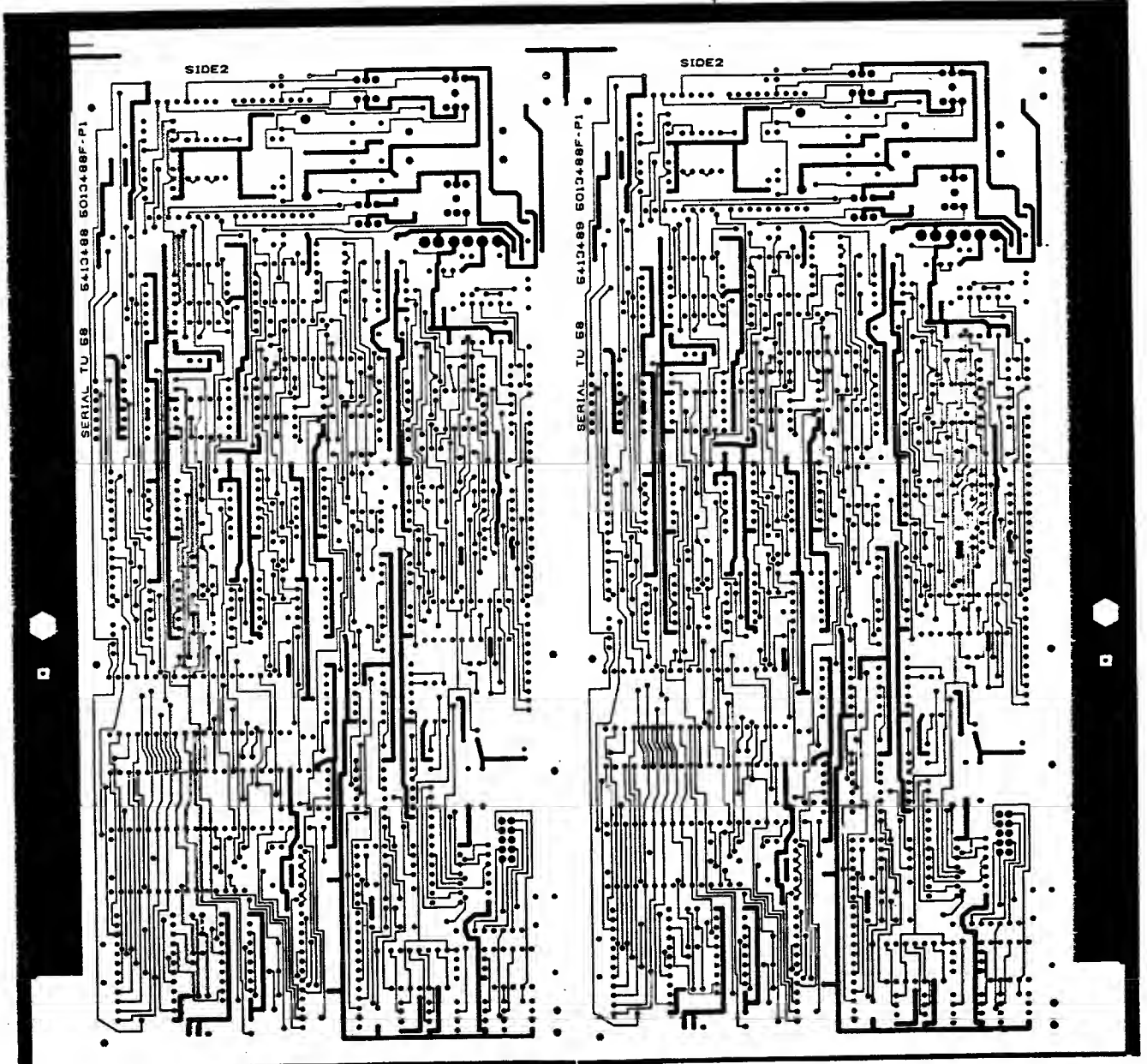


DATE: 10/10/77		30-00	
CHK: [Signature]		TITLE: ETCH CUT DRAWING	
REV: 1		DESIGN: [Signature]	
PROJ: [Signature]		MFG: [Signature]	
PART: [Signature]		SHEET: 1 OF 2	
CUT: 1134155-0		E 2013488-0	

THIS DRAWING IS THE PROPERTY OF THE U.S. GOVERNMENT AND IS TO BE USED FOR OFFICIAL GOVERNMENT PURPOSES ONLY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE U.S. GOVERNMENT.

REVISIONS	
NO.	DESCRIPTION
1	ORIGINAL

TITLE		DRAWING		REV.	
ETCH CUT DRAWING		EC 5013488-0-0		H	
SCALE 1:1		SHEET 2 OF 2		DST.	

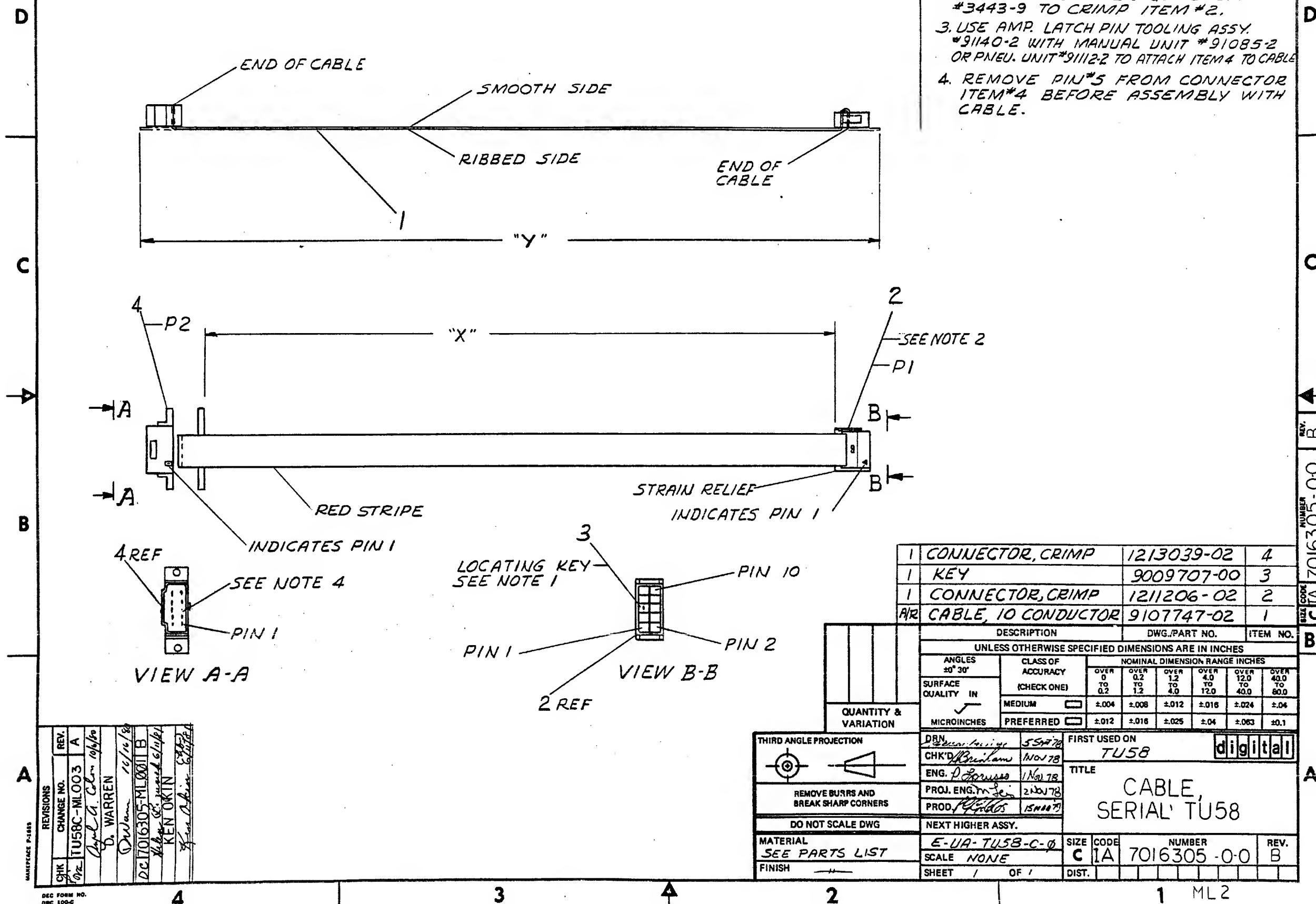


THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1978, DIGITAL EQUIPMENT CORPORATION

NUMBER	DIM "X" VARIATION	DIM "Y" (PRECUT)
7016305-03	3 FT ± 1.0 IN.	3 FT. 3 IN.
7016305-1F	1 FT 6 IN ± 1.0 IN.	1 FT 9 IN.
7016305-OK	9 IN. ± .5 IN.	10 IN.

NOTES

1. INSERT KEY IN #5 CONNECTOR PIN HOLE AND BREAK OFF TAB
2. USE CRIMP PRESS 3M # 3440 OR #3445 AND LOCATER GUIDE 3M #3443-9 TO CRIMP ITEM #2.
3. USE AMP. LATCH PIN TOOLING ASSY. #91140-2 WITH MANUAL UNIT #91085-2 OR PNEU. UNIT #91112-2 TO ATTACH ITEM 4 TO CABLE
4. REMOVE PIN #5 FROM CONNECTOR ITEM #4 BEFORE ASSEMBLY WITH CABLE.

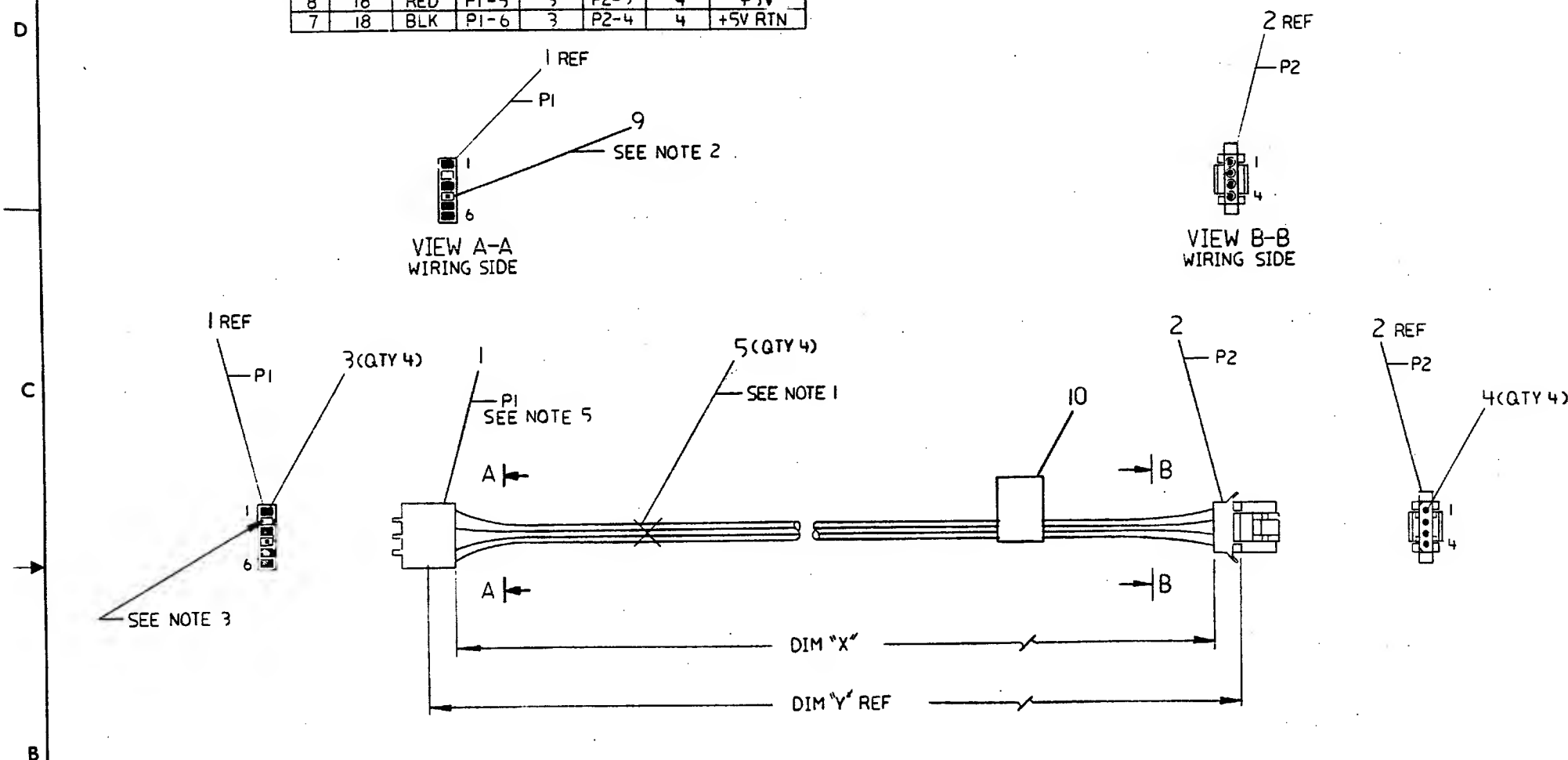


ITEM NO	DESCRIPTION		FROM		TO		REMARKS
	AWG	COLOR	CONN	WITH	CONN	WITH	
6	18	ORN	PI-1	3	P2-1	4	+12V
7	18	BLK	PI-3	3	P2-2	4	+12V RTN
8	18	RED	PI-5	3	P2-3	4	+5V
7	18	BLK	PI-6	3	P2-4	4	+5V RTN



LEGEND		
NUMBER	DIM "X" VARIATION	DIM "Y" (PRE-CUT) REF
7018166-1B	14 IN \pm .5 IN	14.5 IN \pm .5 IN

- NOTES:

- NOTES:
1. ATTACH CABLE TIES (ITEM 5) APPROXIMATELY EVERY 3 INCHES AS SHOWN.
 2. INSERT KEY PLUG (ITEM 9) INTO POSITION 4 OF P1 FROM THIS END.
 3. THERE SHOULD BE NO SOCKET OR KEY INSTALLED IN ITEM 1 POSITION 2 OF P1.
 4. ALL WIRE ENDS TO BE STRIPPED.



SEE OFF SHEET PARTS LIST
K-PL-7018166-0-DBP

 DO NOT SCALE DRAWING REMOVE BURRS AND BREAK SHARP CORNERS MATERIAL SEE PARTS LIST FINISH ++	THIRD ANGLE PROJECTION 		DRW R.L. Tausignant CHG'D R.P. Morin DES. ENG. R.P. Morin MFG. ENG. R.P. Morin WFO. ENG. S. Costy Lone NEXT HIGH-CO'D F-AD-7018114-0-0	DATE 1/14/61 DATE 9 AUG 61 DATE 9 AUG 61 DATE 9 AUG 61 DATE 13 OCT 61	TITLE CABLE, TU BULKHEAD POWER DOCUMENT NUMBER D IA 7018166-0-0 SCALE 1/1 SHEET 1 OF 1	ITEM NO. A																								
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)																													
	INCHES TOLERANCES $X = \pm .1$ $XX = \pm .02$ $XXX = \pm .005$	ANGLES $\pm 0^{\circ} 30'$ SURFACE QUALITY MICRONS	APPLICABLE DIMENSION RANGE (CHECK ONE) <input type="checkbox"/> 0 - .02 <input checked="" type="checkbox"/> .02 - .1 <input type="checkbox"/> .1 - .2 <input type="checkbox"/> .2 - .4 <input type="checkbox"/> .4 - .6 <input type="checkbox"/> .6 - 1.0 <input type="checkbox"/> 1.0 - 2.0 <input type="checkbox"/> 2.0 - 4.0 <input type="checkbox"/> 4.0 - 6.0 <input type="checkbox"/> 6.0 - 10.0 <input type="checkbox"/> 10.0 - 16.0 <input type="checkbox"/> 16.0 - 25.0 <input type="checkbox"/> 25.0 - 40.0 <input type="checkbox"/> 40.0 - 60.0 <input type="checkbox"/> 60.0 - 100.0	DIMENSION RANGE IN INCHES <table border="1"> <thead> <tr> <th>OVER</th> <th>OVER</th> <th>OVER</th> <th>OVER</th> <th>OVER</th> <th>OVER</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0.2</td> <td>1.2</td> <td>4.0</td> <td>12.0</td> <td>40.0</td> </tr> <tr> <td>TO</td> <td>TO</td> <td>TO</td> <td>TO</td> <td>TO</td> <td>TO</td> </tr> <tr> <td>0.2</td> <td>1.2</td> <td>4.0</td> <td>12.0</td> <td>40.0</td> <td>80.0</td> </tr> </tbody> </table>			OVER	OVER	OVER	OVER	OVER	OVER	0	0.2	1.2	4.0	12.0	40.0	TO	TO	TO	TO	TO	TO	0.2	1.2	4.0	12.0	40.0	80.0
	OVER	OVER	OVER	OVER	OVER	OVER																								
0	0.2	1.2	4.0	12.0	40.0																									
TO	TO	TO	TO	TO	TO																									
0.2	1.2	4.0	12.0	40.0	80.0																									
QUANTITY & VARIATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																									

SHEET A1 OF A1

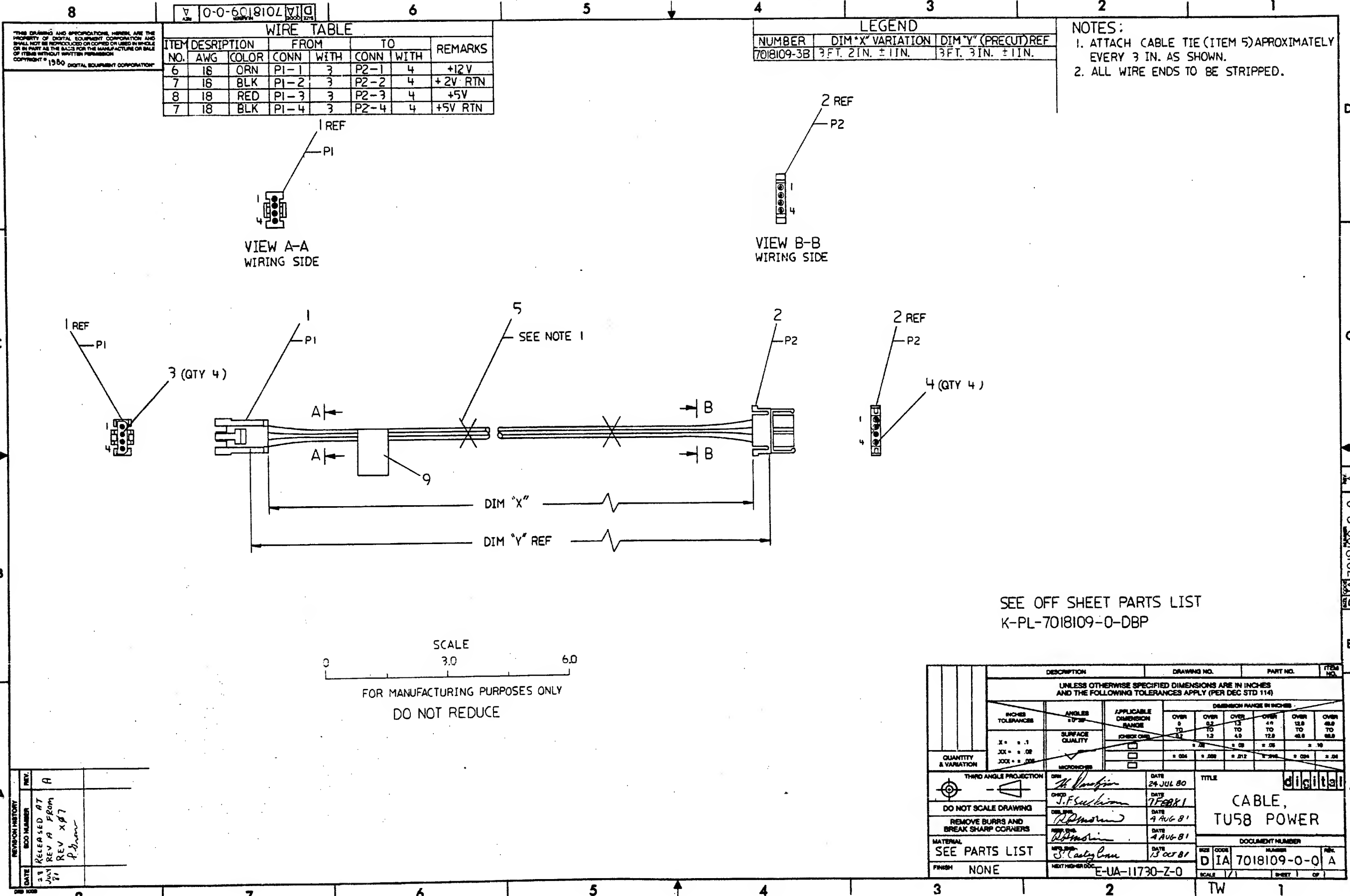
QUANTITY PER VARIATION

CONN 6POS HOUSING
ROPT 4PIN KEYED
FIN CRIMP TYPE
SKT 16-18AWG REEL
TIE CABLE BUNDL DIA 0- 3/4"=101
WIRE, STRND, 18AWG UL1430 0
WIRE, STRND, 18AWG UL1430
WIRE, STRND, 18AWG UL1430 R
CONN KEYING PLOG
LABEL, POWER SUPPLY, 3-7/8" LG X

SECRET

11 NOTE: ITEMS 6,7 AND 8 ARE IN INCHES.

REVISION HISTORY			BASIC PART NO: 7018166		DRN: P. TOUSIGNANT		DATE: 23-JUL-81		DIGITAL				
ENG	ECO NUMBER	REV	SECTION A OF A		CHK'D: A. ROCHA		DATE: 23-JUL-81		TITLE		PARTS LIST		
---	INITIAL	A	SECTION. VARIATION INDEX		---		---		TU BULKHEAD POWER CABLE		---		
			(A) 18		---		---		---		---		
			(B)		DES.ENG.: R. MORIN		DATE: 23-JUL-81		---		---		
			(C)		---		---		---		DOCUMENT NUMBER		
			(D)		RESP.ENG.: R. MORIN		DATE: 23-JUL-81		SIZE CODE		NUMBER		REV
			(E)		---		---		---		---		
			(F)		MFG.ENG.: S. CASTIGLIONE		DATE: 23-JUL-81		K	PL	7018166-0-DBP		A
			---		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		---		FILE NAME:		EDIT
			---		D-1A-7018166-0-0		E-AD-7018114-0-0		---		Z1854A.PLS		11
"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"													



AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A1 OF A1

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QUANTITY PER VARIATION
00

1 E-IA-7425728-0-0

7425728-00
9010308-00
9000026-05
9009636-00

PAN, CATCH
RETAINER, PUSH-ON SS/PAS
FASTNR, 1/4 TURN WING HD
CLAMP, CABLE, FOR FLAT CABLE

1
16

REVISION HISTORY			BASIC PART NO: 7018720			DRN: P. TOUSIGNANT			DATE: 30-JUL-81			D I G I T A L		
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: A. ROCHA	DATE: 30-JUL-81	TITLE PARTS LIST								
---	INITIAL	A	SECTION. VARIATION INDEX			CATCH PAN ASSY								
			[A] 00											
			[B]	DES.ENG.: R. MORIN	DATE: 30-JUL-81									
			[C]	RESP.ENG.: R. MORIN	DATE: 30-JUL-81	DOCUMENT NUMBER								
			[D]			SIZE	CODE	NUMBER						
			[E]	MFG.ENG.: S. CASTIGLIONE	DATE: 30-JUL-81	K	PL	7018720-0-DBP						
			[F]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:								
				C-IA-7018720-0-0	E-UA-11730-Z-0	Z2835A.PLS								
						REV								
						A								
						EDIT #								
						6								

"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION."

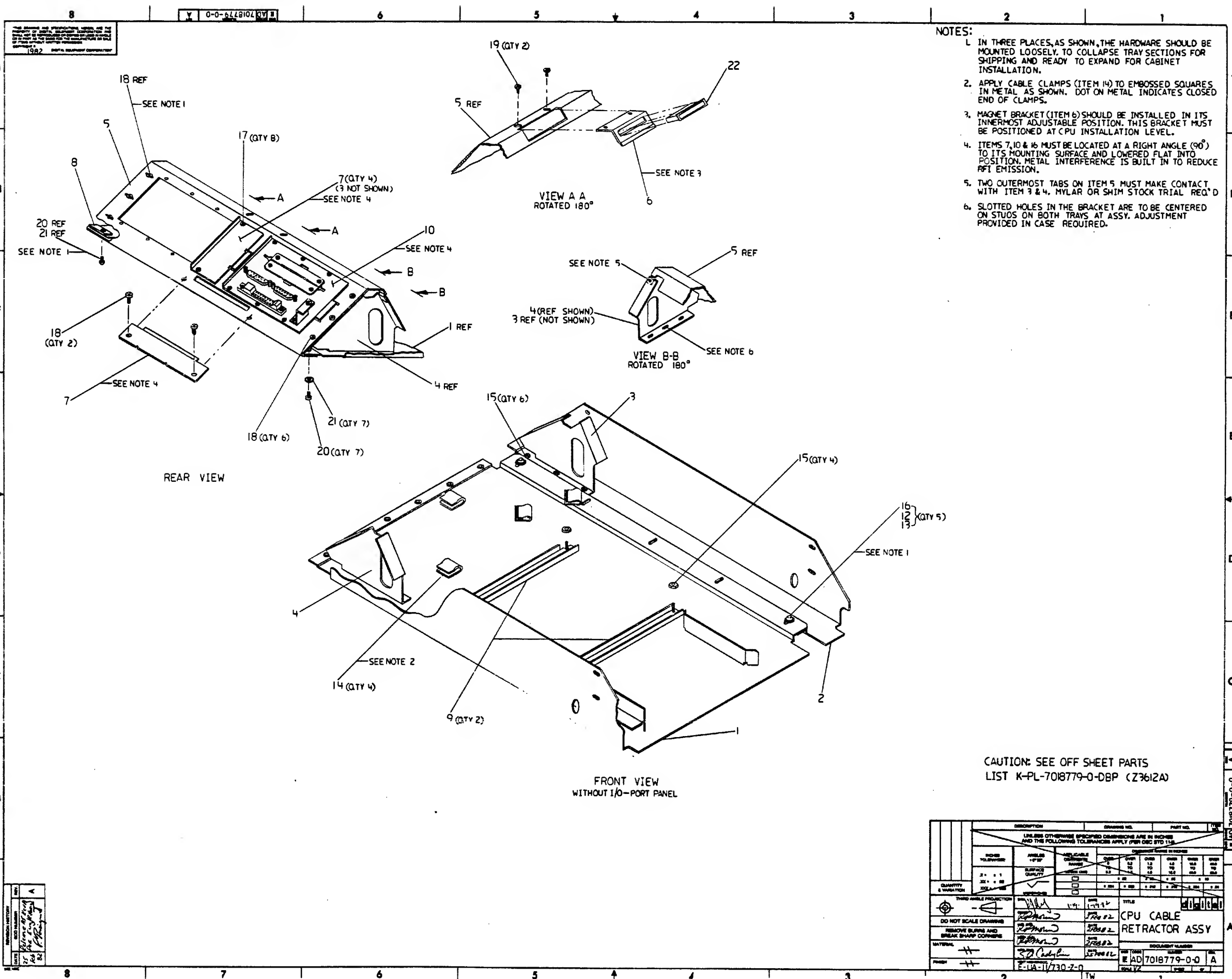
COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION

SHEET A1 OF A1

QUANTITY PER VARIATION
00

REVISION HISTORY			BASIC PART NO: 7018778		DRN: P. TOUSIGNANT		DATE: 27-JAN-82		DIGITAL			
ENG	ECO NUMBER	REV	SECTION A OF A						TITLE		PARTS LIST	
	INITIAL	A	SECTION. VARIATION INDEX		CHK'D: R. MORIN		DATE: 27-JAN-82		CPU-I/O PANEL ASSY			
			[A] 00									
			[B]		DES.ENG.: R. MORIN		DATE: 27-JAN-82					
			[C]						DOCUMENT NUMBER			
			[D]		RESP.ENG.: R. MORIN		DATE: 27-JAN-82		SIZE	CODE	NUMBER	REV
			[E]		MFG.ENG.: S. CASTIGLIONE		DATE: 27-JAN-82		K	PL	7018778-0-DBP	A
			[F]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #	
					D-AD-7018778-0-0		E-AD-7018779-0-0		Z3616A.PLS		8	

"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1982. DIGITAL EQUIPMENT CORPORATION "



- NOTES:
1. IN THREE PLACES, AS SHOWN, THE HARDWARE SHOULD BE MOUNTED LOOSELY, TO COLLAPSE TRAY SECTIONS FOR SHIPPING AND READY TO EXPAND FOR CABINET INSTALLATION.
 2. APPLY CABLE CLAMPS (ITEM 14) TO EMBOSSED SQUARES IN METAL AS SHOWN. DOT ON METAL INDICATES CLOSED END OF CLAMPS.
 3. MAGNET BRACKET (ITEM 6) SHOULD BE INSTALLED IN ITS INNERMOST ADJUSTABLE POSITION. THIS BRACKET MUST BE POSITIONED AT CPU INSTALLATION LEVEL.
 4. ITEMS 7, 10 & 16 MUST BE LOCATED AT A RIGHT ANGLE (90°) TO ITS MOUNTING SURFACE AND LOWERED FLAT INTO POSITION. METAL INTERFERENCE IS BUILT IN TO REDUCE RF EMISSION.
 5. TWO OUTERMOST TABS ON ITEM 5 MUST MAKE CONTACT WITH ITEM 3 & 4. MYLAR OR SHIM STOCK TRIAL REQ'D
 6. SLOTTED HOLES IN THE BRACKET ARE TO BE CENTERED ON STUDS ON BOTH TRAYS AT ASSY. ADJUSTMENT PROVIDED IN CASE REQUIRED.

CAUTION: SEE OFF SHEET PARTS
LIST K-PL-7018779-0-DBP (Z3612A)

DESCRIPTION		DRAWING NO.		PART NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 113)					
DIMENSIONS		TOLERANCES		DIMENSIONS	
INCHES	FRACTIONS	INCHES	FRACTIONS	INCHES	FRACTIONS
2" + .1		1/16"		1/16"	
21" + .05		1/32"		1/32"	
SPECIFICATIONS		SPECIFICATIONS		SPECIFICATIONS	
MATERIAL		MATERIAL		MATERIAL	
FINISH		FINISH		FINISH	
QUANTITY & VARIATION		QUANTITY & VARIATION		QUANTITY & VARIATION	
DO NOT SCALE DRAWING		DO NOT SCALE DRAWING		DO NOT SCALE DRAWING	
REMOVE BURRS AND BREAK SHARP CORNERS		REMOVE BURRS AND BREAK SHARP CORNERS		REMOVE BURRS AND BREAK SHARP CORNERS	
TITLE		TITLE		TITLE	
CPU CABLE		CPU CABLE		CPU CABLE	
RETRACTOR ASSY		RETRACTOR ASSY		RETRACTOR ASSY	
DRAWN BY		DRAWN BY		DRAWN BY	
E-1A-11730-2-0		E-1A-11730-2-0		E-1A-11730-2-0	

SHEET. A1 OF A1:

REVISION HISTORY			BASIC PART NO: 7018779			IDRN:	R.J. RILEY	DATE: 27-JAN-82	DIGITAL		
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	R.J. RILEY	DATE: 27-JAN-82	TITLE PARTS LIST				
---	INITIAL	1A	SECTION. VARIATION INDEX	CHK'D:	R.J. RILEY	DATE: 27-JAN-82	CPU CABLE RETRACTOR ASSY				
			[A] 00								
			[B]	DES.ENG.:	R. MORIN	DATE: 27-JAN-82					
			[C]				DOCUMENT NUMBER				
			[D]	RESP.ENG.:	R. MORIN	DATE: 27-JAN-82	SIZE	CODE	NUMBER	REV	
			[E]	MFG.ENG.:	S. CASTIGLIONE	DATE: 27-JAN-82	K	PL	7018779-0-DBP	A	
			[F]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:		EDIT. #		
				E-AD-7018779-0-0		E-UA-11730-Z-0	Z3612A.PLS		3		

THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

COPYRIGHT (C) 1982. DIGITAL EQUIPMENT CORPORATION "

This drawing and specifications herein are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.

DIGITAL EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS				
PACKAGING INSTRUCTION			REV: _____	DATE: _____
TITLE PKG CPU 11730-ZA				
LEGEND				
VARIATION	USED ON	PACKAGE TYPE	REMARKS	
3700662-01	11730-ZA			
PARTS LIST 3700662-01				
REFER TO OFF-SHEET PARTS LIST K-PL-3700662-0-DBP				
PACKAGING INSTRUCTIONS 3700662-01				
PROCEDURE FIGURE 1 AND 2				
STEP				
1.	CUT TWO (2) PIECES OF POLYESTER STRAPPING (9905734-02) SEVEN (7) FEET LONG AND LAY FLAT ON THE PALLET (9906199-00).			
2.	SET UP ONE (1) END OF THE DIE CUT TRAY (9906832-01) AND PLACE ON THE TWO (2) STRAPS.			
3.	SET UP THE DIE CUT SHEET (9906933-01).			
4.	PLACE RETRACTOR TRAY (7018779-00) ON DIE CUT SHEET SO THAT THE ANGLED CABLE CONNECTOR RESTS AGAINST THE CORRUGATED SQUARE.			
5.	WRAP THE SHEET AROUND THE RETRACTOR TRAY.			
6.	PLACE THE WRAPPED RETRACTOR TRAY INTO THE DIE CUT TRAY SO THAT THE CORRUGATED SQUARE ON THE SHEET RESTS AGAINST THE SET UP END OF THE DIE CUT TRAY.			
7.	TAPE ONE (1) PRESSURE SHEET ASSY (7018718-00) TO THE TOP OF THE CPU BOX USING FIFTEEN (15) INCHES OF GLASS FILAMENT TAPE (9009634-00).			
8.	PLACE A POLYETHYLENE BAG (9905128-23) OVER THE CPU UNIT ASSEMBLY.			
9.	PLACE THE CPU BDX INTO THE WRAPPED RETRACTOR TRAY SO THAT THE BEZEL OF THE CPU UNIT ASSEMBLY IS FACING THE OPEN END OF THE DIE CUT TRAY.			
10.	FOLD OVER THE OPEN END OF THE DIE CUT TRAY.			
SHEET 4 & 5 "C" SIZE				
ENG	APPD	SIZE	CODE	NUMBER
6/2/82	Jean H. Banet	A	PA	3700662-0-0
		REV	A	
SHEET 1 OF 5				

PACKAGING INSTRUCTION				CONTINUATION SHEET	
TITLE					
PKG CPU 11730-ZA					
11. PLACE ONE (1) HALF SLOTTED CARTON (9906930-01) OVER THE CPU UNIT ASSEMBLY AND INTO THE DIE CUT TRAY. LEAVE THE TOP FLAPS OPEN.					
12. PLACE EACH OF THE FOLLOWING ITEMS IN, THE QUANTITY SPECIFIED, INTO A PLASTIC BAG (9906557-14) AND PLACE THEM ON THE FOURTH PANEL OF THE FIVE PANEL FOLDER (9906786-00):					
ITEM	DESCRIPTION	PART NUMBER	QUANTITY		
A	GUIDE AND CLAMP	7425927-00	1		
B	SHIPPING BRACKET	7413659-00	1		
C	BRACKET, CARRIER/BOX	7425928-00	1		
D	BRACKET, CAB/CARRIER	7425929-00	1		
E	CABLE, FERRULED	1215700-04	1		
F	CABLE CARRIER	121902-00	1		
G	CLAMP, R80 CABLE	7426623-01	1		
H	CLAMP, DMF CABLE	7426625-01	1		
I	BAR CLAMP ASSY	7426723-01	1		
J	STUD PLATE	7426335-01	4		
K	SLIDE MTG BRKT, LEFT	7425734-00	2		
L	SLIDE MTG BRKT, RIGHT	7425734-01	2		
		SIZE	CODE	NUMBER	REV
		A	PA	3700662-0-0	A
SHEET 2 OF 5					

PACKAGING INSTRUCTION				CONTINUATION SHEET	
TITLE					
PKG CPU 11730-ZA					
13. CLOSE AND SEAL THE FIVE PANEL FOLDER USING TWENTY-FOUR (24) INCHES OF CARTON SEALING TAPE (9905729-00).					
14. PLACE THE SEALED FIVE PANEL FOLDER INTO THE HALF SLOTTED CARTON IN FRONT OF THE CPU BEZEL.					
CPU 11730-ZA					
15. PLACE ONE (1) TUSE-K MEDIA CARTRIDGE (3615809-00) INTO A BUBBLELITE ENVELOPE (9905012-05) AND PLACE ON TOP OF THE FIVE PANEL FOLDER.					
16. PLACE ONE (1) AC LINE CORD (1700083-21) AND ONE (1) AC LINE CORD (1700083-22) INTO THE HALF SLOTTED CARTON ON TOP OF THE FIVE PANEL FOLDER.					
17. PLACE A HARDWARE KIT BAG (B-PL-11730-Z-5) INTO THE HALF SLOTTED CARTON ON TOP OF THE AC LINE CORDS.					
18. PLACE TWO (2) SLIDES (1218166-00) AND HARDWARE KIT BAGS, ONE (1) ON EACH SIDE OF THE CPU UNIT ASSEMBLY BETWEEN THE INSIDE OF THE HALF SLOTTED CARTON AND THE WRAPPED RETRACTOR TRAY AS SHOWN IN FIGURE 1.					
19. CLOSE THE FLAPS OF THE HALF SLOTTED CARTON.					
20. SEAL THE CARTON BY CLAMPING THE TWO (2) STRAPS AROUND THE CARTON.					
21. PALLETIZE PER FIGURE 2 USING FOUR (4) ANGLEBARD (9906185-05) AND FOUR (4) PIECES OF STRAPPING (9905734-02).					
		SIZE	CODE	NUMBER	REV
		A	PA	3700662-0-0	A
SHEET 3 OF 5					

SIZE CODE
C PA 3700662-0-0

REV. A

C

B

A

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION

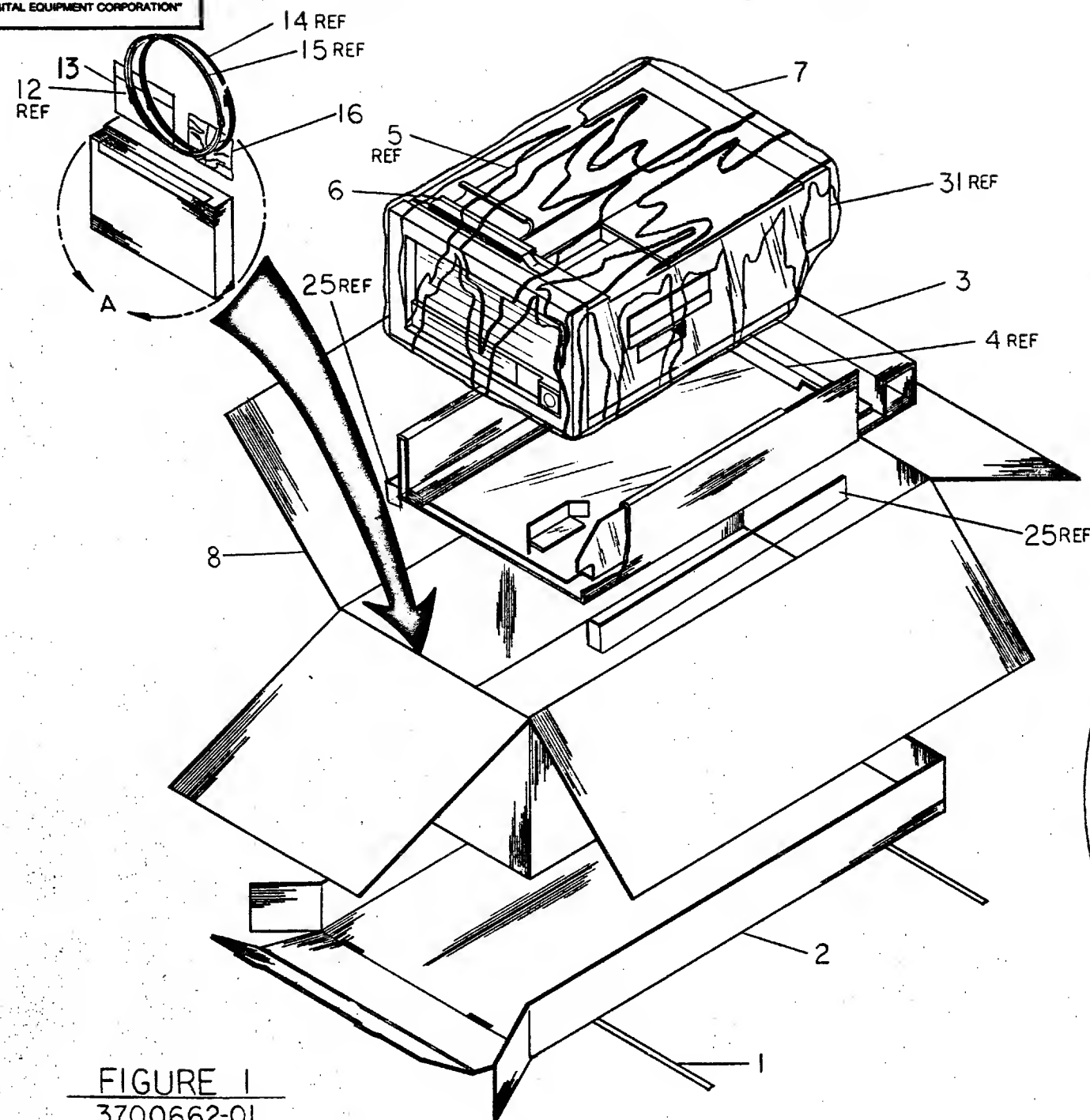
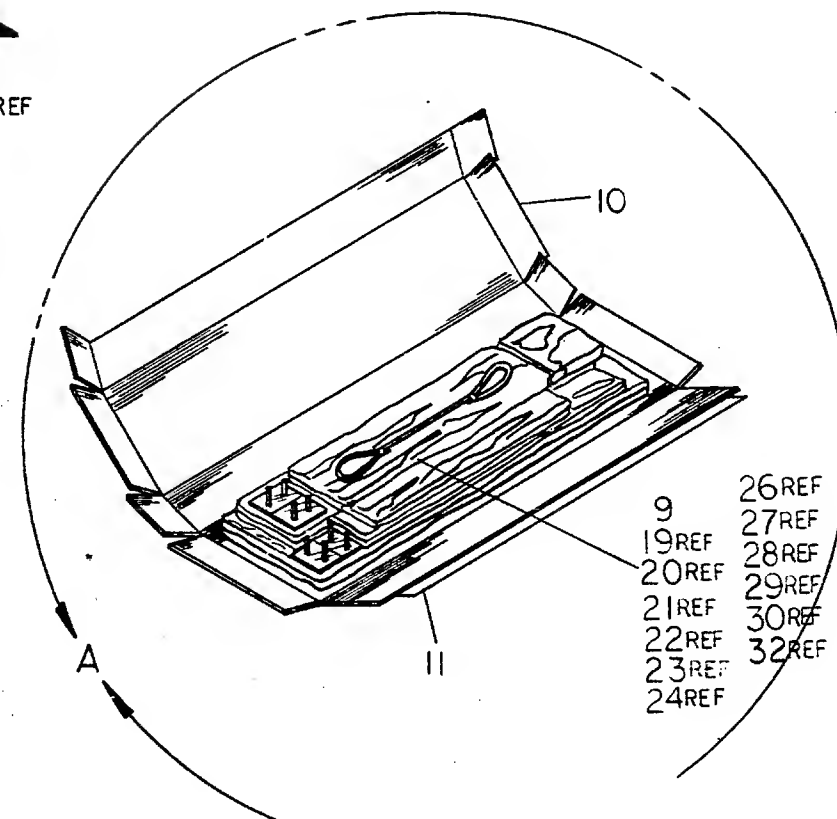


FIGURE 1
3700662-01

PACKAGE DIMENSIONS, WEIGHTS
& PLASTIC PACKING MATERIAL

	USA		METRIC	
WEIGHT	98.00	LBS.	44.45	KG.
LENGTH	42.00	IN.	1066	MM
WIDTH	22.00	IN.	558	MM
HEIGHT	12.50	IN.	317	MM
CUBE	6.68	CU.FT.	0.19	CU.M.
DENSITY	14.67	LBS./CU.FT.	235.0	KG./CU.M.
* PLASTIC	—	% _L — % _W	—	TYPE

* % VOLUME EXPANDED
% WEIGHT UNEXPANDED



FOR OFF SHEET PARTS LIST SEE K-PL-3700662-0-DBP

DRW. G. GYORKE	DATE 6/82	TITLE PKG	digital
CHKD. J. Barrett	DATE 6/24/82	CPU 11730-ZA	
DES. ENG. G. Larsen	DATE 6/82		
RESP. ENG. G. Larsen	DATE 6/82		
MFG. ENG. NONE	DATE —	DOCUMENT NUMBER	
NEXT HIGHER DOC.		SIZE C	CODE PA
		NUMBER 3700662-0-0	REV. A
		SCALE 7/8	SHEET 4 OF 5

SIZE
C PA 3700662-0-0
REV
A

THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE
PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND
SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE
OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE
OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT ©
DIGITAL EQUIPMENT CORPORATION

PACKAGE DIMENSIONS WEIGHTS & PLASTIC PACKING MATERIAL			
	USA	METRIC	
WEIGHT	638.00 LBS.	289.39	KG.
LENGTH	48.00 IN.	1219	MM
WIDTH	42.00 IN.	1066	MM
HEIGHT	42.50 IN.	1079	MM
CUBE	49.58 CU.FT.	1.40	CU.M
DENSITY	12.87 LBS/CU.FT.	206.1	KG/CU.M
* PLASTIC	— % VOLUME (EXPANDED) — % WEIGHT (UNEXPANDED)	—	TYPE

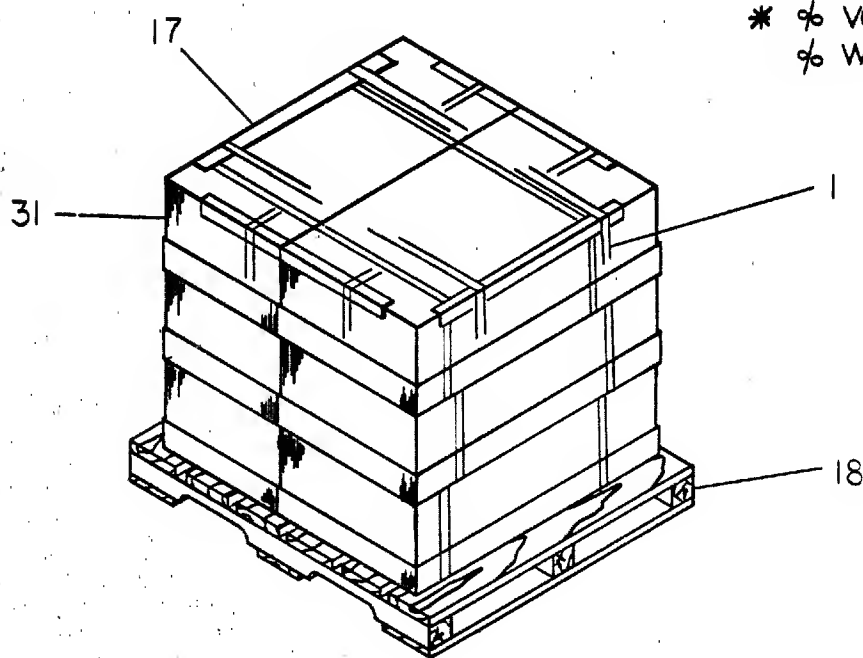


FIGURE 2
3700662-01

REVISION HISTORY	
DATE	ECO NUMBER

FOR OFF SHEET PARTS LIST SEE K-PL-3700662-0-DBP

DRN.	DATE	TITLE PKG	digital
CHK'D.	DATE	CPU 11730-ZA	
DES. ENG.	DATE		
RESP. ENG.	DATE		
MFG. ENG.	DATE	DOCUMENT NUMBER	
NEXT HIGHER DOC.	DATE	SIZE	CODE
		C	PA
		3700662-0-0	A
		SCALE	SHEET 5 OF 5

"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN."

DRAWING DIRECTORY

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © DIGITAL EQUIPMENT CORPORATION.

UNIT VARIATIONS

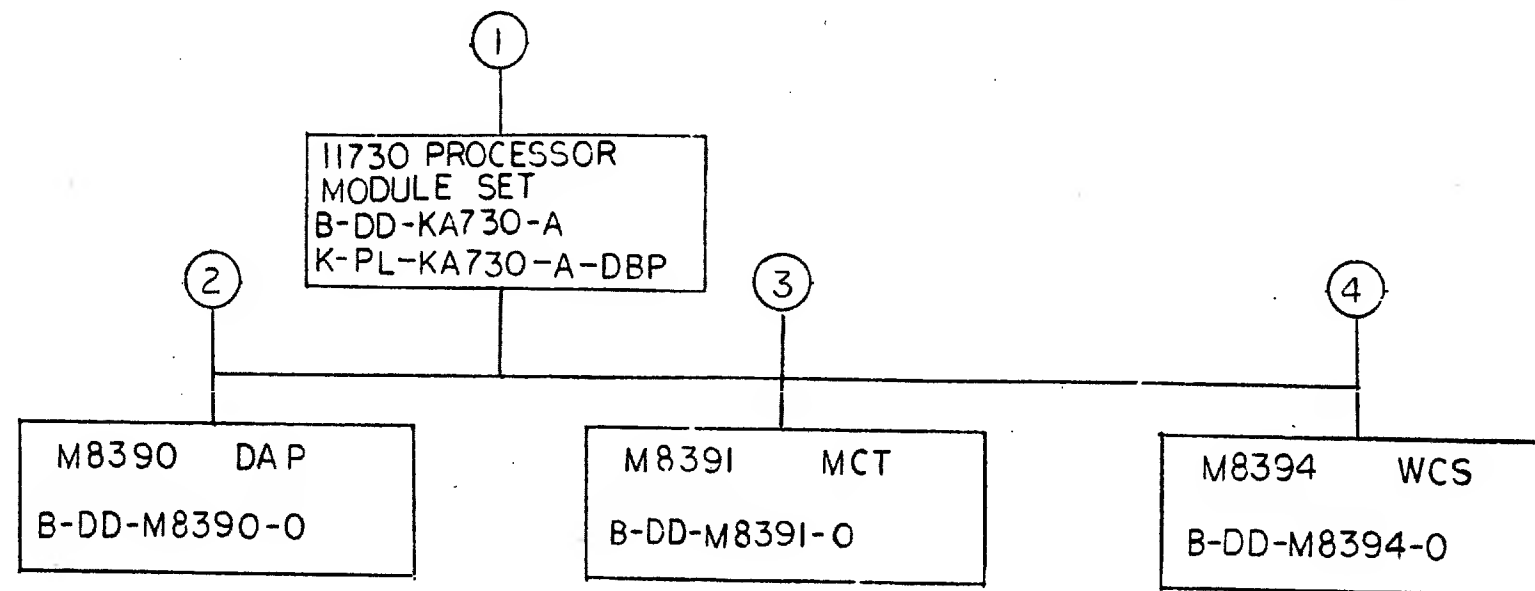
[illegible]

REVISIONS	REV.		USED ON OPTION/MODEL	DRN.	D. LANDRY	DATE	2-2-82	TITLE 11730 PROCESSOR MODULE SET									
	CHANGE NO.			11730	CHK'D.	D.M. Landry	DATE										
	CHK					PROJ. ENG.	D.M. Landry	DATE	25-FEB-82	SIZE	CODE	NUMBER				REV	
										B	DD	KA 730-A				A	
			SHEET 1 OF 3	PROD.	S.A. Carlson	DATE	25-FEB-82	DIST.									

TW

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"

REV	NUMBER	SIZE	CODE
A	KA730-A	B	DD



TITLE	SIZE	CODE	NUMBER	REV
11730 PROCESSOR MODULE SET	B	DD	KA730-A	A
SHEET 2 OF 3				

SHEET A1 OF A1'

QUANTITY PER VARIATION
A

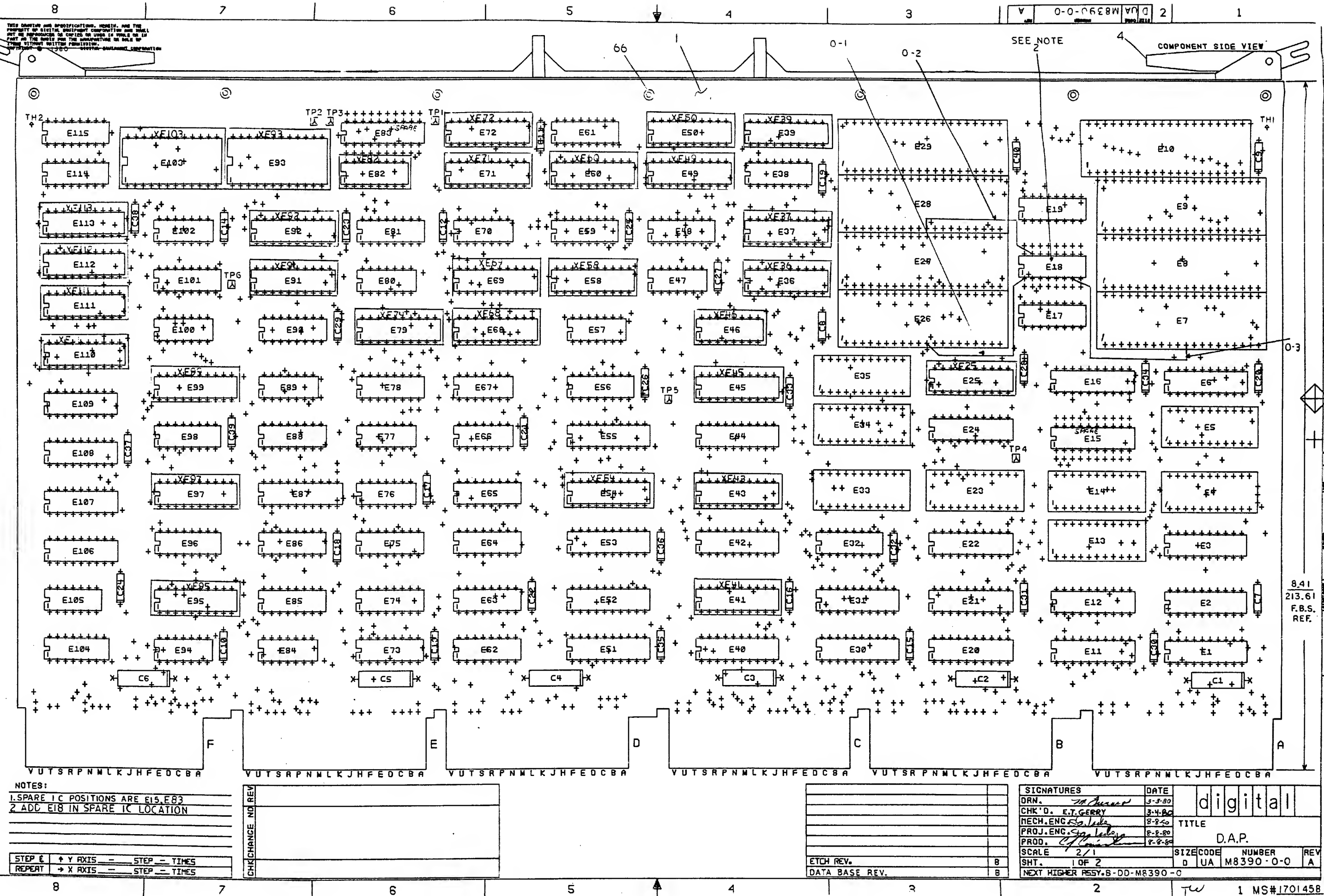
```

1      1  B-DD-M8390-0          M8390-00      DAP (DATA PATH)
2      2  B-DN-M8391-0          M8391-00      MCT (MEMORY CONTROLLER) HEX
3      3  B-DD-M8394-0          M8394-00      WRITEABLE CONTROL STORE,HEX,FOR
*****
                                           RELEASABLE

```

REVISION HISTORY		BASIC PART NO: KA730		DRN:	A. ROCHA	DATE: 03-MAR-82	D I G I T A I L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	D. LANDRY	DATE: 03-MAR-82	TITLE		PARTS LIST	
	INITIAL	A	SECTION. VARIATION INDEX	CHK'D:	D. LANDRY	DATE: 03-MAR-82	11730 PROCESSOR MODULE SET			
			[A] A							
			[B]	DES.ENG.:	D. LANDRY	DATE: 03-MAR-82				
			[C]	RESP.ENG.:	D. LANDRY	DATE: 03-MAR-82	DOCUMENT NUMBER			
			[D]				SIZE	CODE	NUMBER	REV
			[E]	MFG.ENG.:	S. CASTIGLIONE	DATE: 03-MAR-82	K	PL	KA730-A-DBP	A
			[F]	ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:	FILE NAME:		EDIT #	
						#B-DD-KA730-A	Z1867A.PLS		3	

THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT (C) 1982. DIGITAL EQUIPMENT CORPORATION



8

SIZE CODE
DUA M8390-0-0

6

5

4

3

1

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION

REWORK INSTRUCTIONS

WIRE ADDS SIDE 1:

0 - 1 FROM E18 - 1 TO E26 - 11

0 - 2 FROM E18 - 15 TO E23 - 11

0 - 3 FROM E18 - 7 TO E7 - 11

D

D

C

C

B

B

A

A

REVISION HISTORY		
DATE	ECO NUMBER	REV.

DOCUMENT NUMBER		
SIZE CODE	NUMBER	REV.
DUA	M8390-0-0	A
SCALE	2-1	SHEET 2 OF 2

D.A.P

TW

8

7

6

5

4

3

2

1

AUTOMATED BY PRTLST.3M(41)

PARTS LIST

SHEET A1 OF A2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	D-MD-5013860-0-0	5013860-00	DAP	1	
2		1012084-01	8 MFD 25V +75-10% AL EL	6	C1-C6
3		1012784-00	.047 MFD 50V +80-20% CER	34	C7-C40
4		1216988-02	HANDLE, MODULE, HEX TWO EJECTORS	1	
5		1215006-02	SKT, IC 16PIN DIP TIN PLATE	2	XE46, XE82
6		1215006-04	SKT, IC 20PIN DIP TIN PLATE	26	XE36, XE37, XE39, XE41, XE43, XE45, XE49, XE50, XE54, XE58, XE60, XE68, XE69, XE71, XE72, XE79, XE91, XE92, XE95, XE97, XE99, XE110, XE111-XE113, XE25
7		1215006-06	SKT, IC 24PIN DIP TIN PLATE	2	XE93, XE103
8		1311003-01	R NETWORK 14-180 14-390 16PIN	1	E73
9		1910532-00	74500 NAND GATE-QUAD 2IN	1	E57, E89
10		1910534-00	74504 INVERTER GATE-HEX 1I	1	E67, E77
11		1910536-00	74510 NAND GATE-TRIPLE 3IN	1	E102
12		1910539-00	74520 NAND GATE-DUAL 4INPU	1	E100
13		1910542-00	74564 A-0-1 GATE 4-2-3-2	1	E94
14		1910547-00	745153 MUX 1 OF 4 (DUAL)	1	E32
15		1910549-00	745158 MUX 1 OF 2 (QUAD)	1	E56, E78, E90, E98, E101, E114
16		1910956-00	745151 MUX 1 OF 8	1	E81, E89
17		1910957-00	745175 FF-D QUAD COMMON CLO	1	E64, E75
18		1911579-00	8641 TRANSCEIVER, BUS, QUA	1	E34
19		1911641-00	SN 745257 MUX, QUAD 2 TO 1	1	E33
20		1911675-00	745138 DECODER/DEMUX 3-8 LIN	1	E63
21		1911676-00	745139 DECODER-DUAL TWO-INP	1	E43, E63
22		1911712-00	74551 AND-OR GATE-INVERT O	1	E47, E105
23		1912097-00	SN 745182 LOOK AHD CARRY GEN	1	E17, E19
24		1912388-00	74502 NOR GATE-QUAD 2IN, PO	1	E70, E76, E80, E84
25		1912586-00	DM 85568N REGISTER, 64BIT EDGE	1	E106-E109
26		1912648-00	L5251 MUX 8 INPUT, TRI-STA	1	E96

REVISION HISTORY		BASIC PART NO: M8390	
ENG: ECO NUMBER	REV	SECTION A OF A	DRN: J. CASEY
INITIAL	A	SECTION VARIATION INDEX	DATE: 27-FEB-80
KO M8390-TW001	B	[A] 00	CHK'D: E.T. GERRY
		[B]	DATE: 27-FEB-80
		[C]	DES. ENG: S. LACKEY
		[D]	DATE: 7-29-80
		[E]	RESP. ENG.: S. LACKEY
		[F]	DATE: 7-29-80
		[G]	MFG. ENG.: J. CONSIDINE
		[H]	DATE: 8-AUG-80
		[I]	ASSEMBLY NUMBER:
		[J]	D-0A-M8390-0-0
		[K]	TOP DOCUMENT NUMBER:
		[L]	B-DD-M8390-0-0
		[M]	FILE NAME:
		[N]	Z1269B.PLS
			EDIT #
			18

"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1982. DIGITAL EQUIPMENT CORPORATION"

AUTOMATED BY PRTLST.3M(41)

P A R I S L I S T

SHEET A2 OF A2

LINE ITEM DOCUMENT NUMBER

PART NUMBER

DESCRIPTION

QTY PER VARIATION
00

REFERENCE DESIGNATOR

27	1912660-00	745253	MUX 1 OF 4 (DUAL)	2	E59,E61
28	1912746-00	74537	NAND GATE-QUAD 2IN	1	E66
29	1912796-00	74148	EXCODER,PRIORITY,8 T	1	E65
30	1912860-00	LS259	LATCH 8BIT	1	E85
31	1912865-00	LS283	ADDER-4BIT BINARY FU	1	E115
32	1913245-01	2901A	MICROPROCESSOR-4 BIT	8	E7-E10,E26-E29
33	1913670-00	745373	LATCH 8BIT TRASP TR	7	E3,E6,E12,E16,E21,E22,E24
34	1913671-00	745374	FF-D OCTAL TRISTATE	10	E1,E20,E30,E40,E42,E51-E53,E55,
				CONT	E87
35	1914866-00	AM 93548	PCGEN/CHECK PARITY, 48	2	E85,E104
36	1915218-00	LS245	TRANSCEIVER,BUS,OCT	8	E2,E11,E31,E44
37	1915697-00		RAM 256X4 TRI-STATE	1	E4,E5,E13,E14,E23,E33-E35
38	23001K4-00	K4-01		1	E69
39	23002K4-00	K4-01		1	E95
40	23003K4-00	K4-01		3	E97,E99,E110
41	23008K3-00	K3-01	PAL,REG,CONT	1	E58
42	23032K3-00	K3-01	PAL,REG,CONT	1	E41
43	23010K3-00	K3-01	PAL,REG,CONT	1	E60
44	23011K3-00	K3-01	PAL,REG,CONT	1	E49
45	23012J5-00	J5-01	PAL,LOGIC,CONT	1	E79
46	23006K3-00	K3-01	PAL,REG,CONT	1	E72
47	23007K3-00	K3-01	PAL,REG,CONT	1	E71
48	23012K3-00	K3-01	PAL,REG,CONT	1	E112
49	23013J5-00	J5-01	PAL,LOGIC,CONT	1	E45
50	23013K3-00	K3-01	PAL,REG,CONT	1	E37
51	23014J5-00	J5-01	PAL,LOGIC,CONT	1	E91
52	23014K3-00	K3-01	PAL,REG,CONT	1	E39
53	23015J5-00	J5-01	PAL,LOGIC,CONT	1	E25
54	23015K3-00	K3-01	PAL,REG,CONT	1	E50
55	23016J5-00	J5-01	PAL,LOGIC,CONT	1	E111
56	23017J5-00	J5-01	PAL,LOGIC,CONT	1	E92
57	23018J5-00	J5-01	PAL,LOGIC,CONT	1	E113
58	23019J5-00	J5-01	PAL,LOGIC,CONT	1	E68
59	23020J5-00	J5-01	PAL,LOGIC,CONT	1	E54
60	23021J5-00	J5-01	PAL,LOGIC,CONT	1	E43
61	23041J5-00	J5-01	PAL,LOGIC,CONT	1	E36
62	23069D1-00	D1-02		1	E93
63	23133F3-00	F3-03		1	E103
64	23954A9-00	A9-01		1	E82
65	23945A9-00	A9-01		1	E46
66	9009000-00		EYELET ROLL FLANGE .1210DX .156	12	
67	9009143-00		PIN, STAKING, P.C. BOARD, .025 X	6	TP1-TP6
68	1311003-02		R NETWORK 14-330 14-680 16PIN	1	E18
69	9105740-55		WIRE(WRAP)30AWG UL1423	A/R	

***** RELEASABLE/NO REF DES CHECK *****

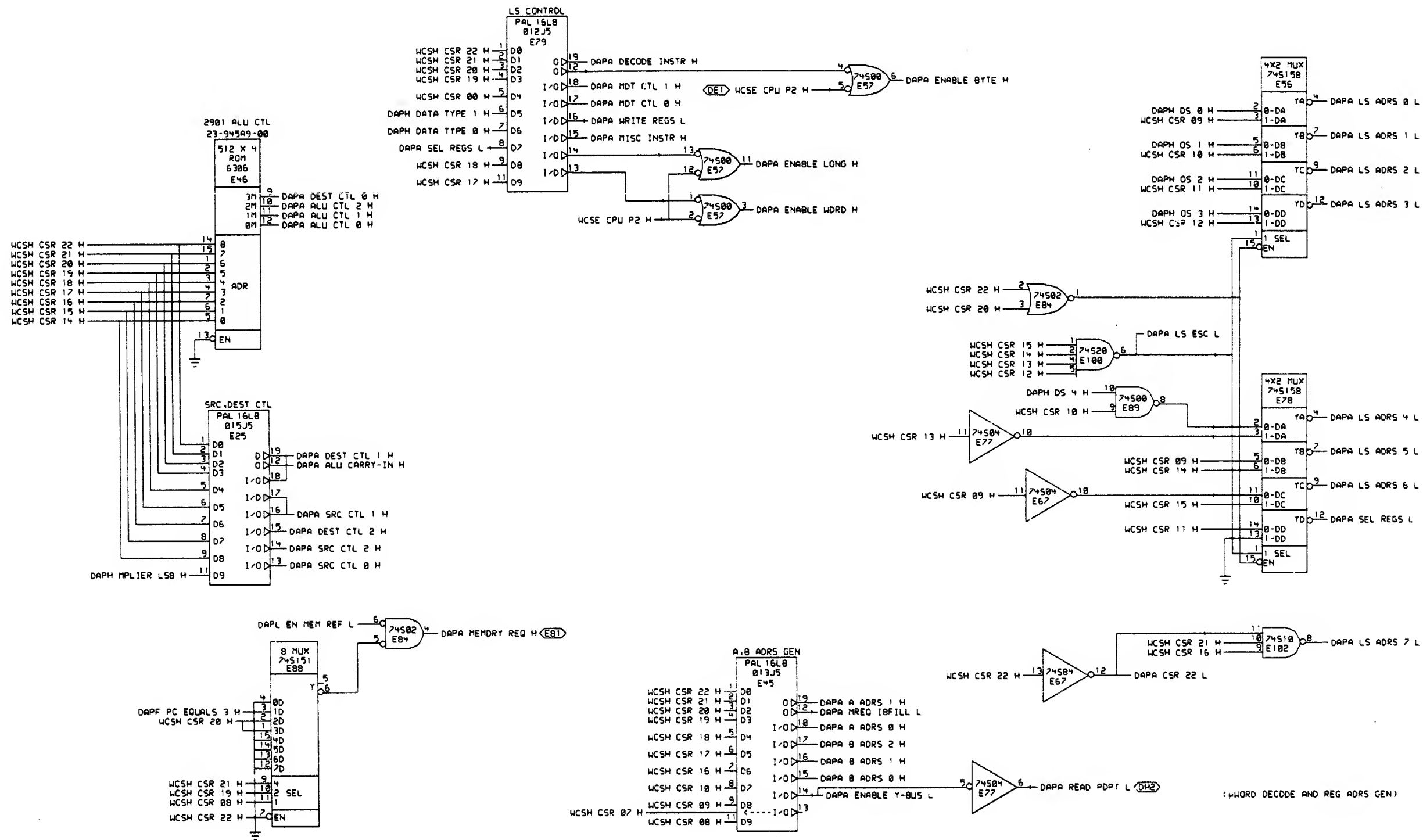
D I G I T A L		TITLE		SECTION A OF A		SIZE	CODE	DOCUMENT NUMBER	REV
		DAP				K	PL	M8390-0-DBP	B

D



digital	DRAWN BY: <i>[Signature]</i>	DATE ENG. <i>30-SEP-81</i>	DATE	TITLE: 11730 CONTROL STORE FORMATS
CHECKED BY: <i>[Signature]</i>	DATE DESIGNED LOCATION:	SHEET 1 OF 1		
COP. 1500 COMPLD. BY 126-SEP-81 10:09 NEXT HIGHER ASSEMBLY			SIZE CODE D BD	NUMBER M8390-0-1 REV. A
FIRST USED ON OPTION MODEL: 11730				

8 7 6 5 4 3 2 1



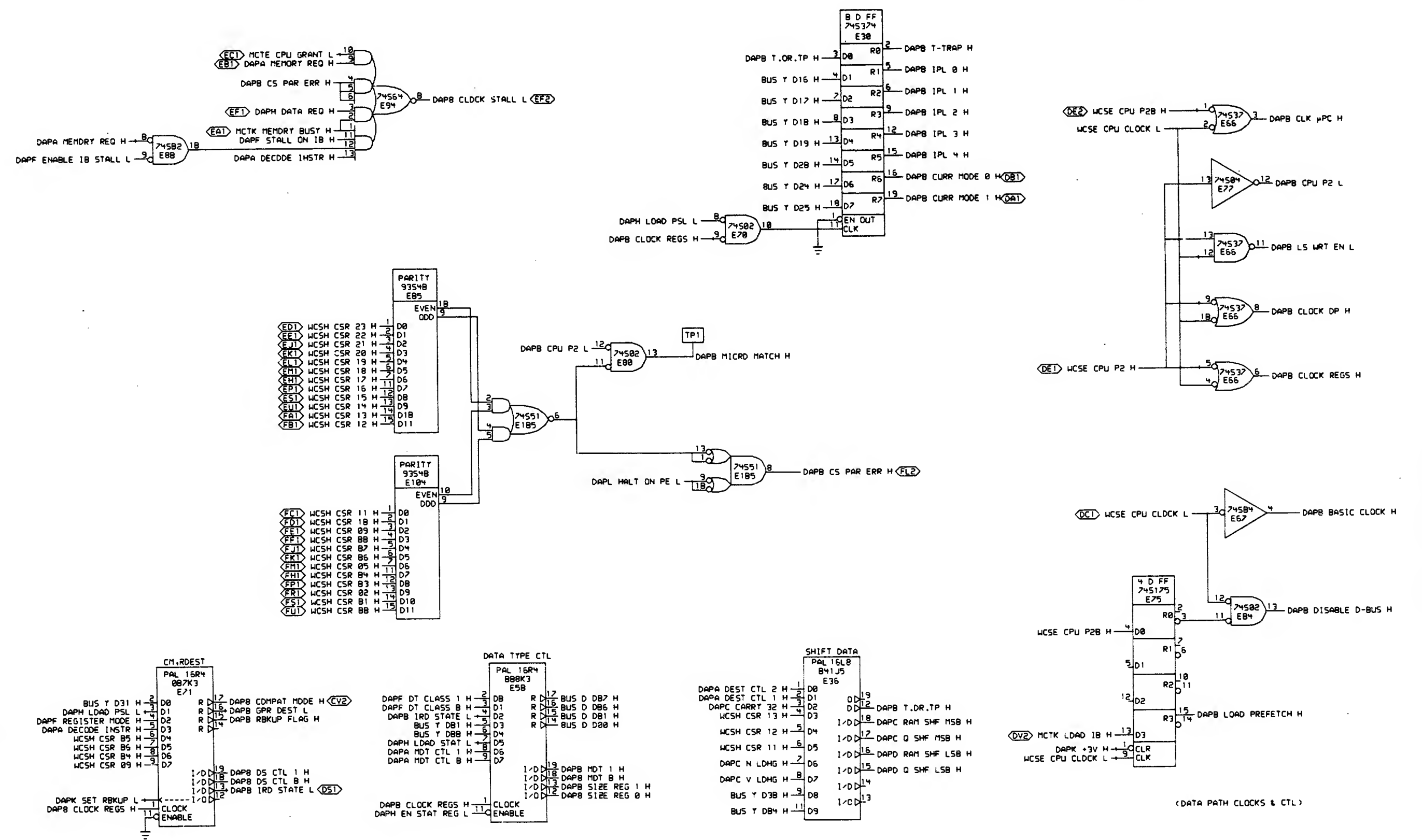
THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN ANY MANNER OR IN ANY MANNER FOR THE MANUFACTURE OF ANY ITEM WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

REVISIONS
CHK CHANGE NO. REV

digital
DRN: J. M. Hoffman
DATE: 27-OCT-81
ENG. DATE: 27-OCT-81
TITLE: NEBULA CPU & DATA PATH (DAPA)
FIRST USED ON OPTION/MODEL: 117730
SIZE CODE NUMBER REV.
D CS M8390-0-DAPA B

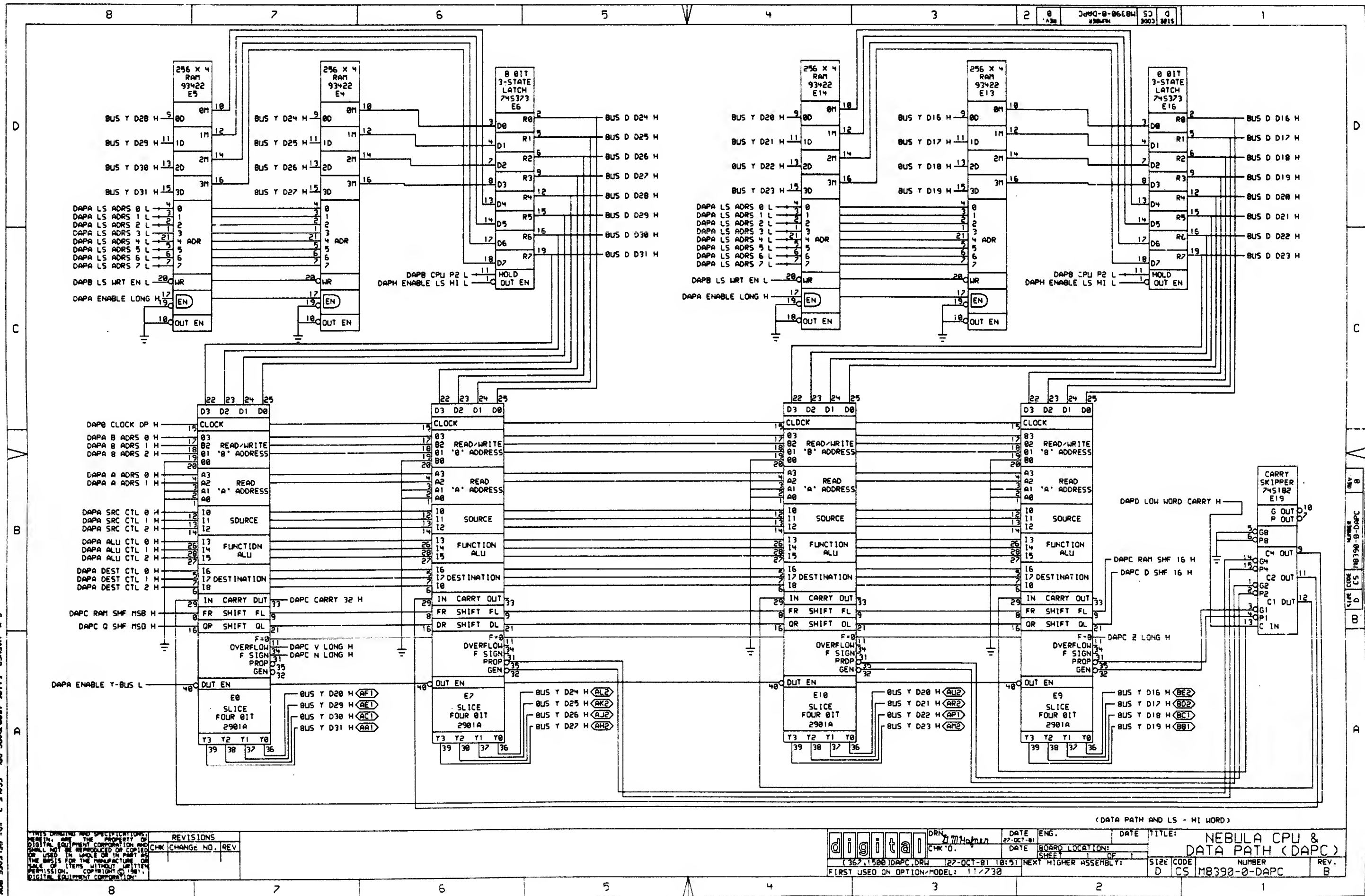
G.M. HARTER, (1106-1500) DAPA.DPA, SCALE 2, "D" RELEASE BOX
G.M. HARTER DAPA.PLOT (1106-1500) 27-OCT-81 11:26

G.M. HARTNER, (11186, 1500 DAPB.DTL, SCALE 2, "D" RELEASE 350X
G.M. HARTNER DAPB, PLOT 11186, 1500 27-OCT-81 11:25



THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981. DIGITAL EQUIPMENT CORPORATION.		REVISIONS		DATE		TITLE: NEBULA CPU & DATA PATH (DAPB)	
CHK	CHANGE NO.	REV	DATE	DATE	BOARD LOCATION	SIZE CODE	NUMBER
						D	CS
							M8390-0-DAPB
							REV. B

REV. B
NUMBER
M8390-0-DAPB
SIZE CODE
D
CS



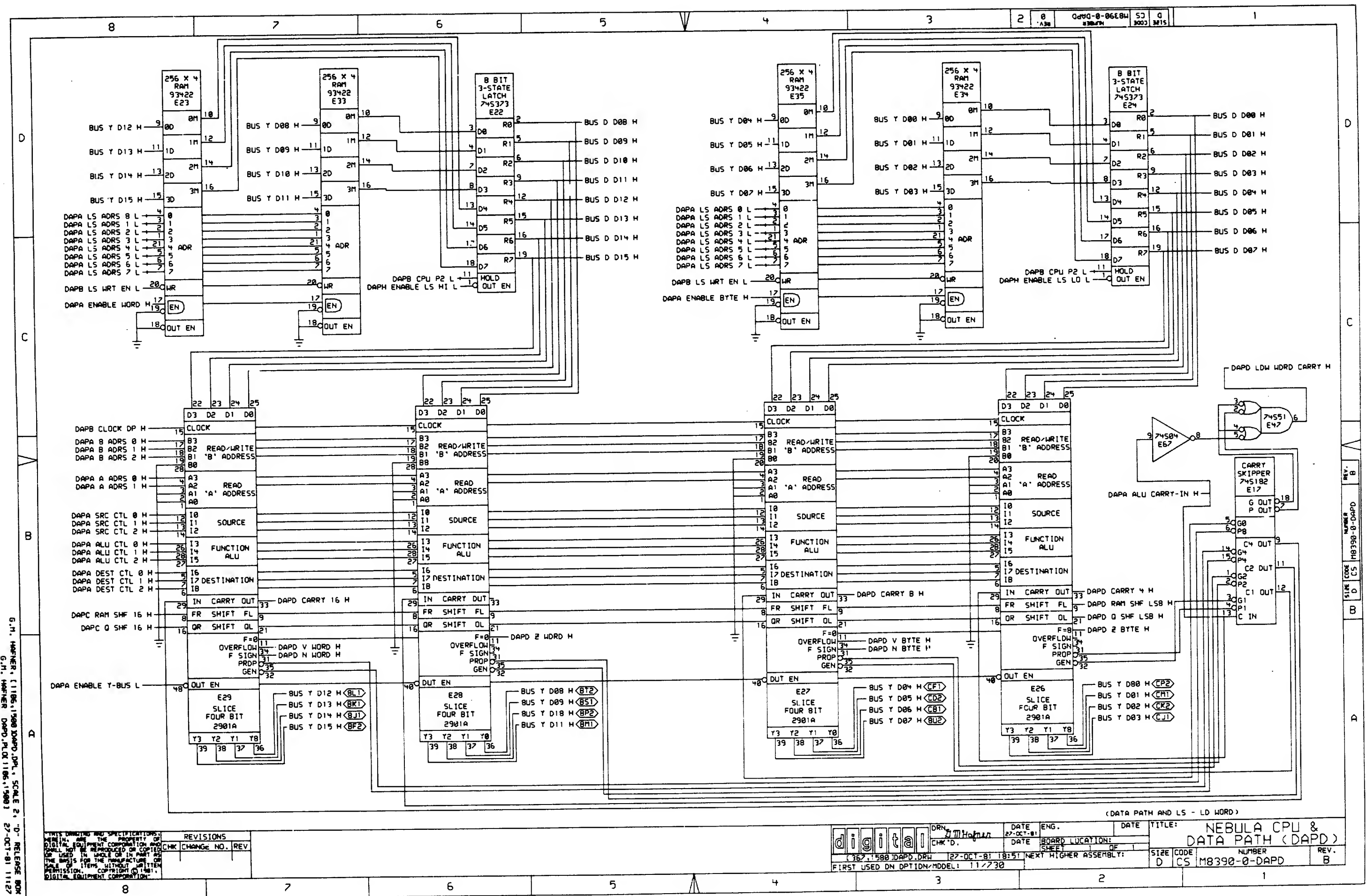
G.M. WARNER, (11186, 1988) DAPC, DPL, SCALE 2, -D- RELEASE BOX
G.M. WARNER DAPC, PLOT (1186, 1988) 27-OCT-81 11225

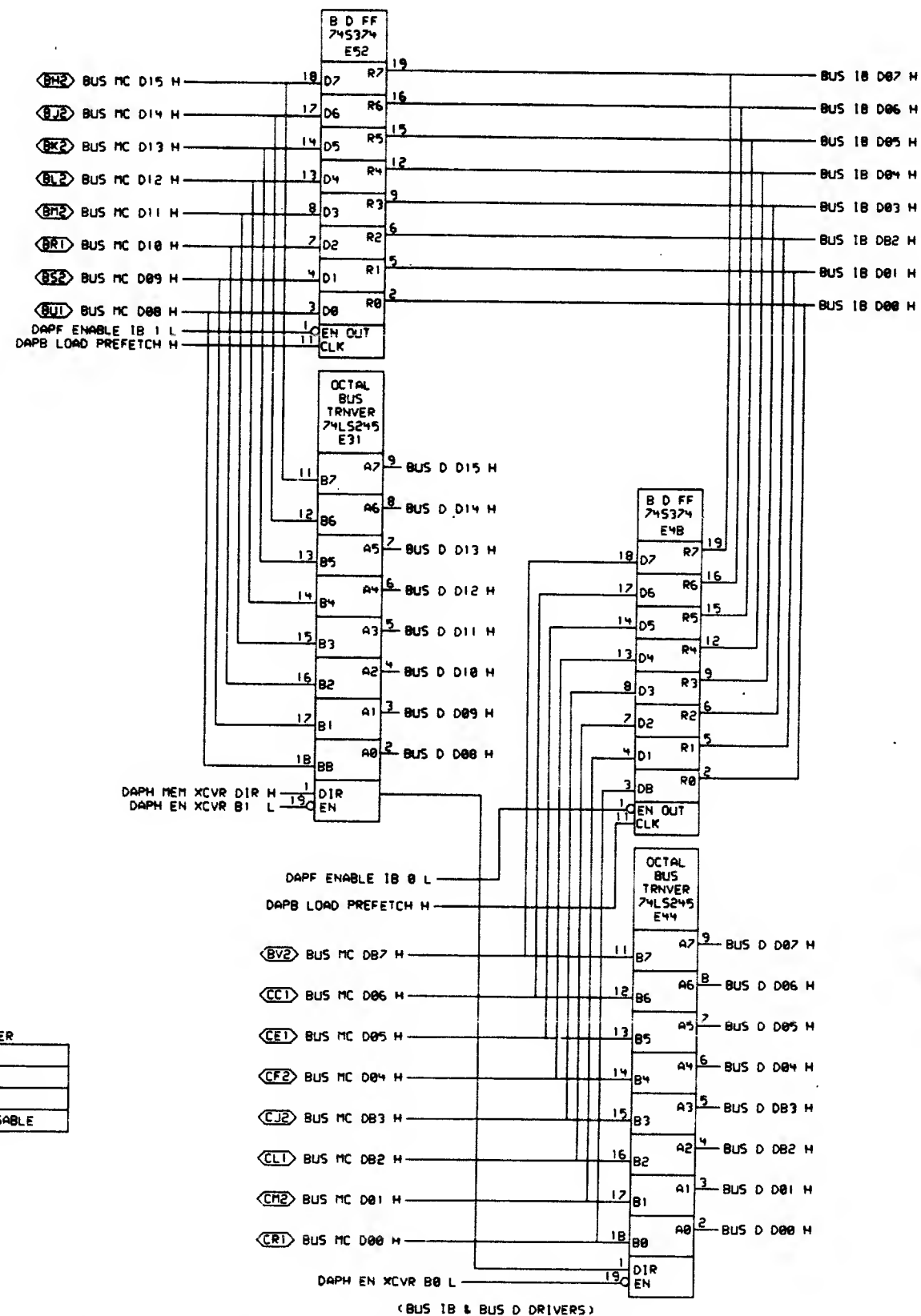
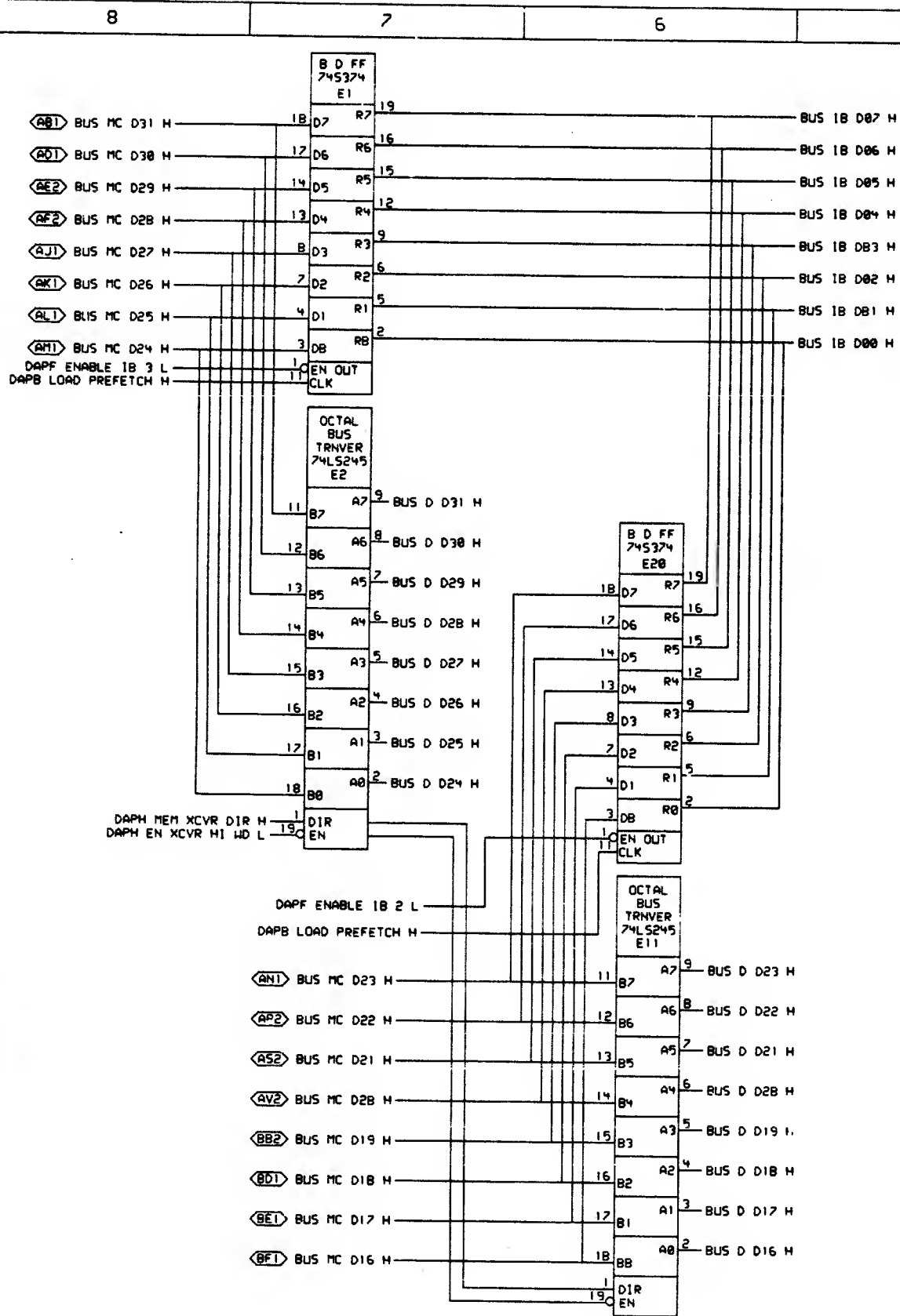
362-1500 DAPC, DPL 27-OCT-81 10:51 NEXT HIGHER ASSEMBLY: 117730

(DATA PATH AND LS - HI WORD)

REVISIONS	
CHK	CHANGE NO. REV

digital		DRN: J.M. Warner	DATE: 27-OCT-81	ENG.	DATE	TITLE: NEBULA CPU & DATA PATH (DAPC)
362-1500 DAPC, DPL		CHK: D.	DATE: 27-OCT-81	10:51	NEXT HIGHER ASSEMBLY: 117730	SIZE: D
FIRST USED ON OPTION/MODEL: 117730		BOARD LOCATION: SHEET 1 OF 1		CODE: CS		NUMBER: M8390-0-DAPC
						REV: B





74LS245 BI-DIRECTIONAL DRIVER		
EN	DIR	FUNCTION
L	L	B → A
L	H	A → B
H	X	TRI-STATE DISABLE

THIS DRAWING AND SPECIFICATIONS
HEREIN ARE THE PROPERTY OF
DIGITAL EQUIPMENT CORPORATION AND
SHALL NOT BE REPRODUCED OR COPIED
OR USED IN WHOLE OR IN PART FOR
ANY OTHER PROJECT WITHOUT THE
WRITTEN PERMISSION OF DIGITAL
EQUIPMENT CORPORATION.

REVISIONS	
CHK	CHANGE NO. REV.

digital
367,1500 DAPE.DRW
FIRST USED ON OPTION/MODEL: 11/730

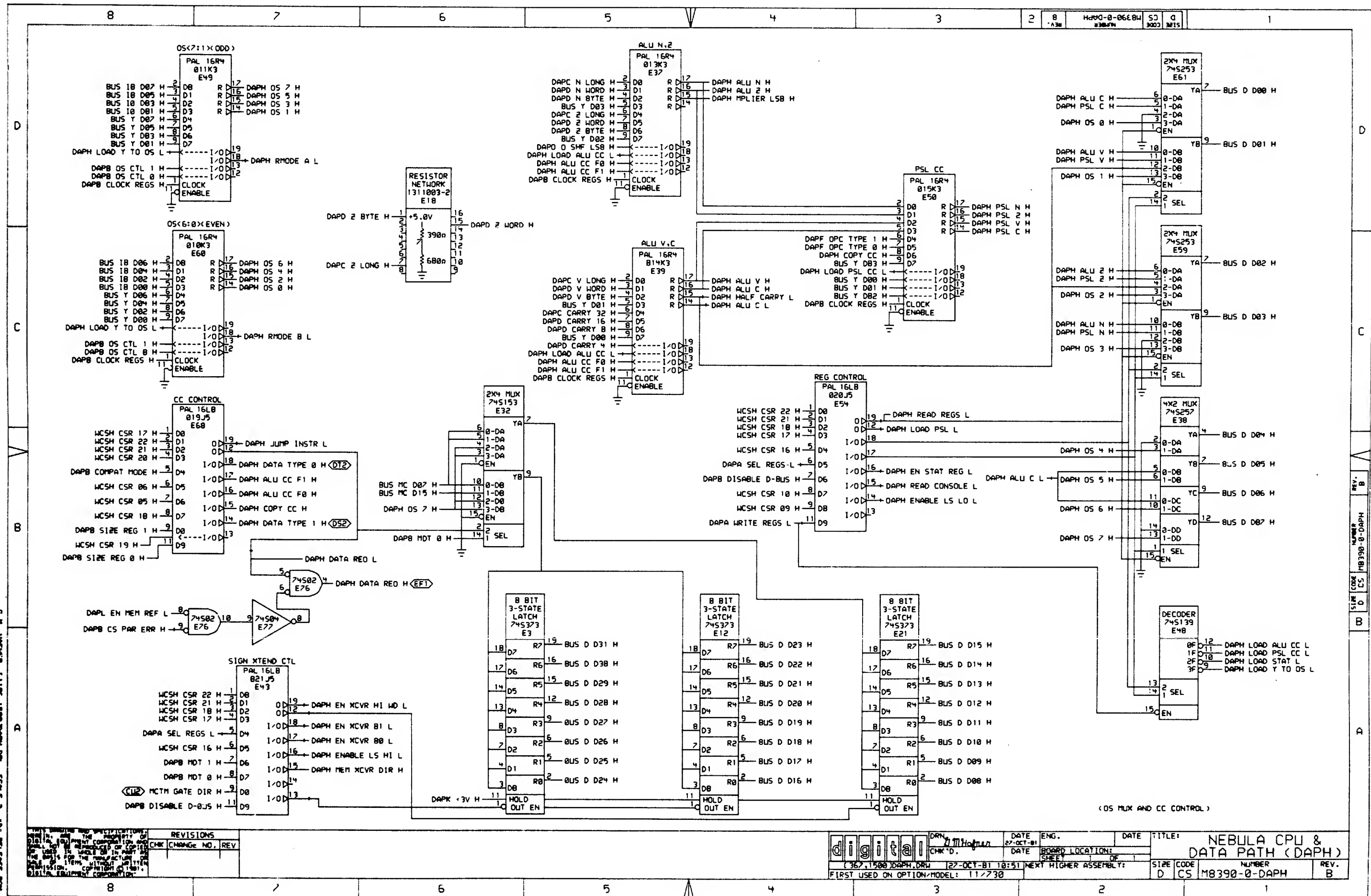
DRN: J. M. H. H. H.
CHK'D: J. M. H. H. H.
DATE: 27-OCT-81
DATE: 27-OCT-81 10:51

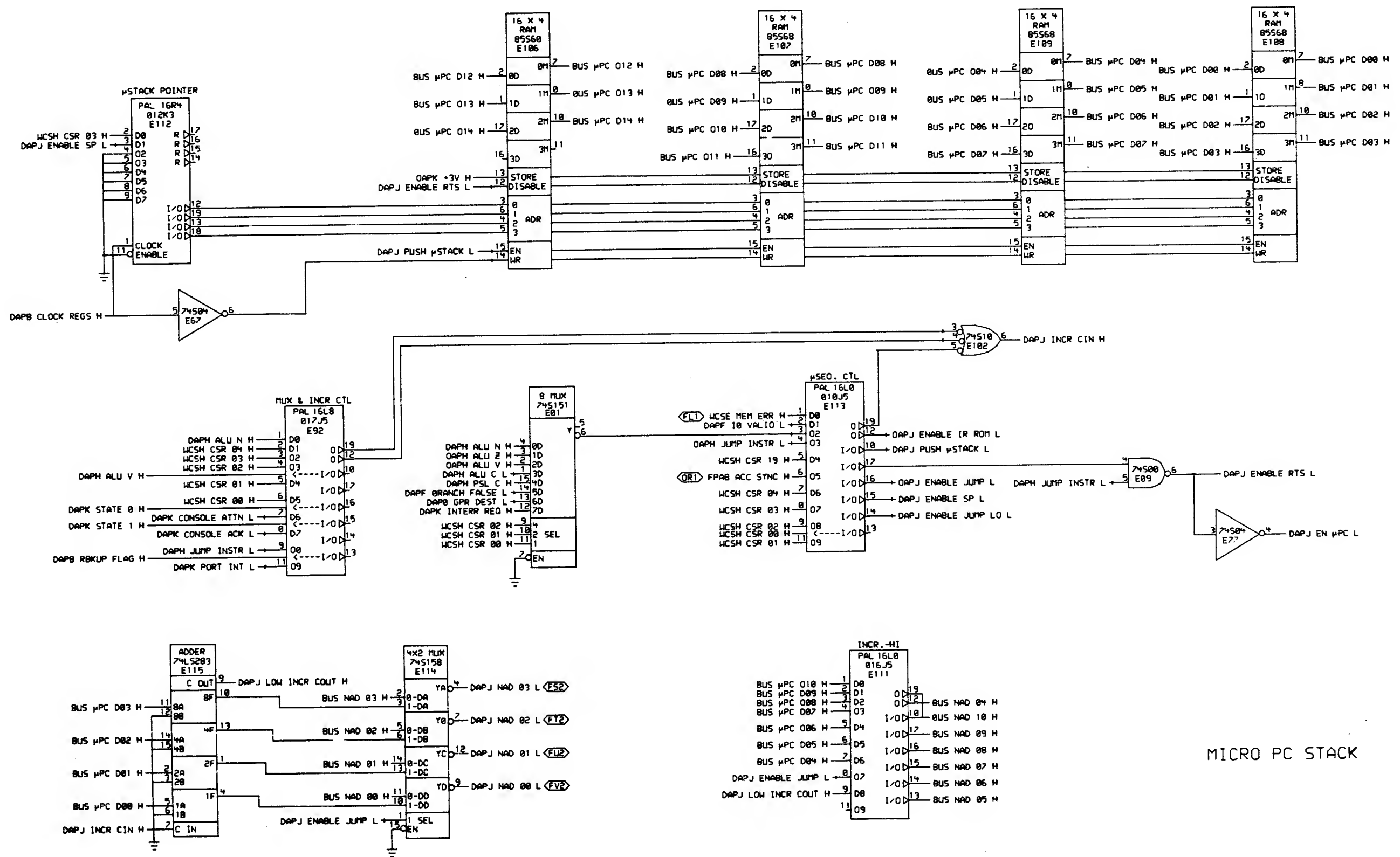
ENG. DATE: 27-OCT-81
BOARD LOCATION: 1
SHEET: 1 OF 1
NEXT HIGHER ASSEMBLY:

TITLE: NEBULA CPU & DATA PATH (DAPE)
SIZE: D CS M8390-0-DAPE
NUMBER: B
REV. B

REV. B
NUMBER M8390-0-DAPE
SIZE D CS

D





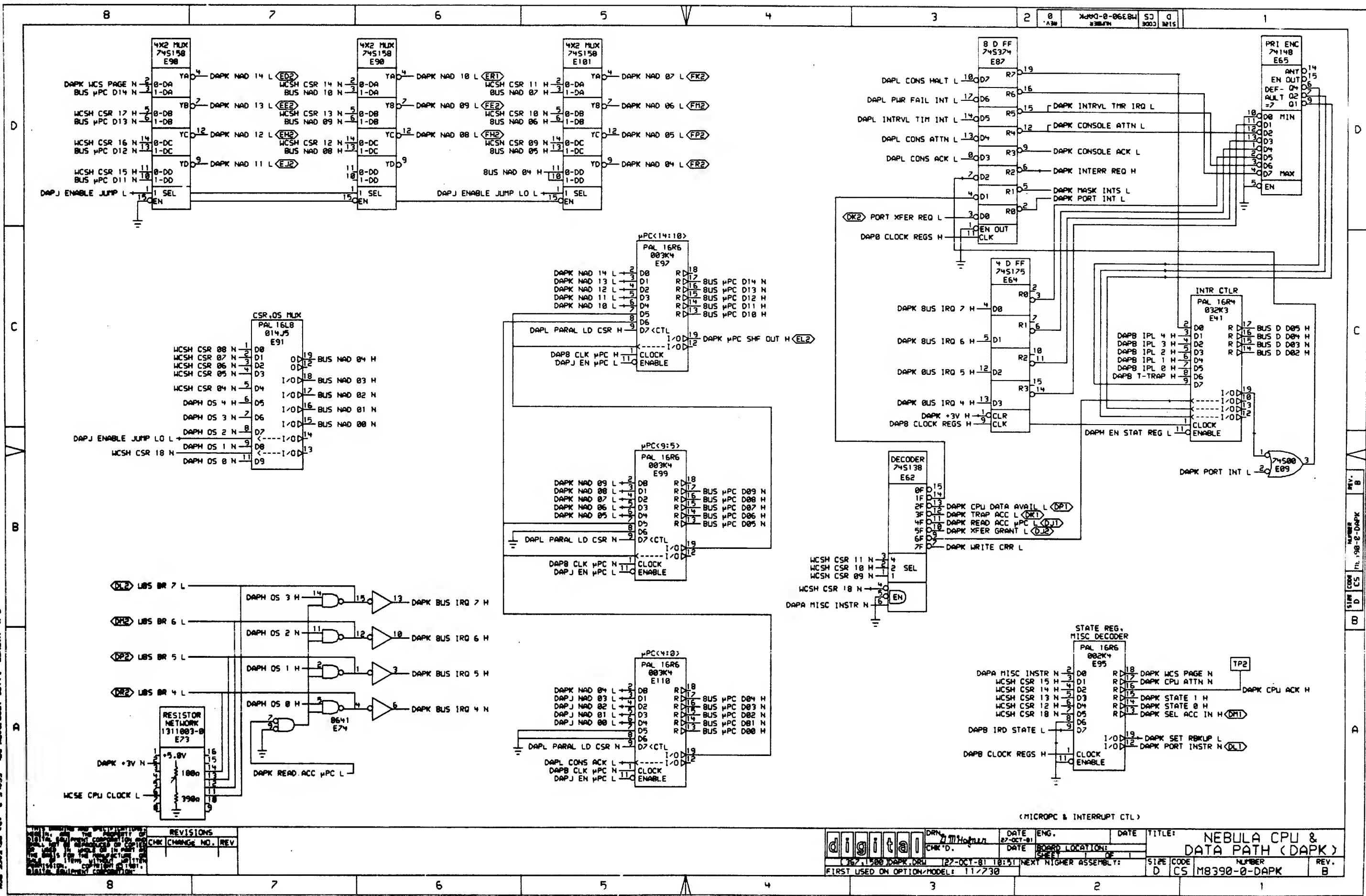
MICRO PC STACK

G.M. WERNER, 1106, 1500 DAPJ.DRW, SCALE 2:1, D- RELEASE 804
G.M. WERNER DAPJ.DRW (106, 1500) 27-OCT-81 11:28

REVISIONS	
CHK	CHANGE NO. REV

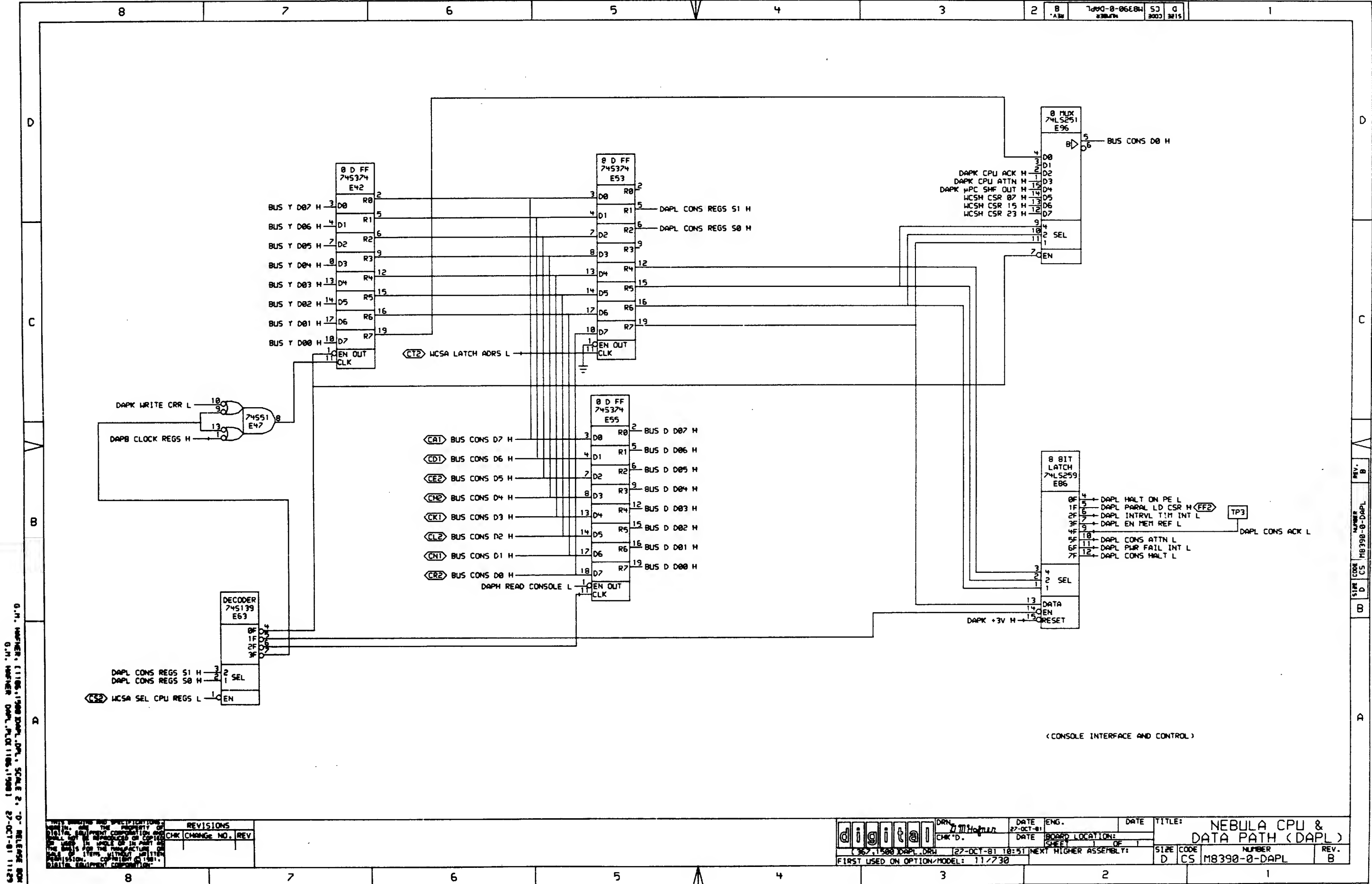
digital	DRN. 777H	DATE 27-OCT-81	ENG.	DATE	TITLE: NEBULA CPU & DATA PATH (DAPJ)
	CHK'D.	DATE 27-OCT-81	BOARD LOCATION: 1	SHEET 1	SIZE CODE NUMBER REV. D CS M8390-0-DAPJ B
FIRST USED ON OPTION MODEL: 11/730					

G.M. WARTER, 1106, 1980 DAPK DPL, SCALE 2, 0- INLEAVE BOX
G.M. WARTER DAPK, 1106, 1980 1 27-OCT-81 11:23



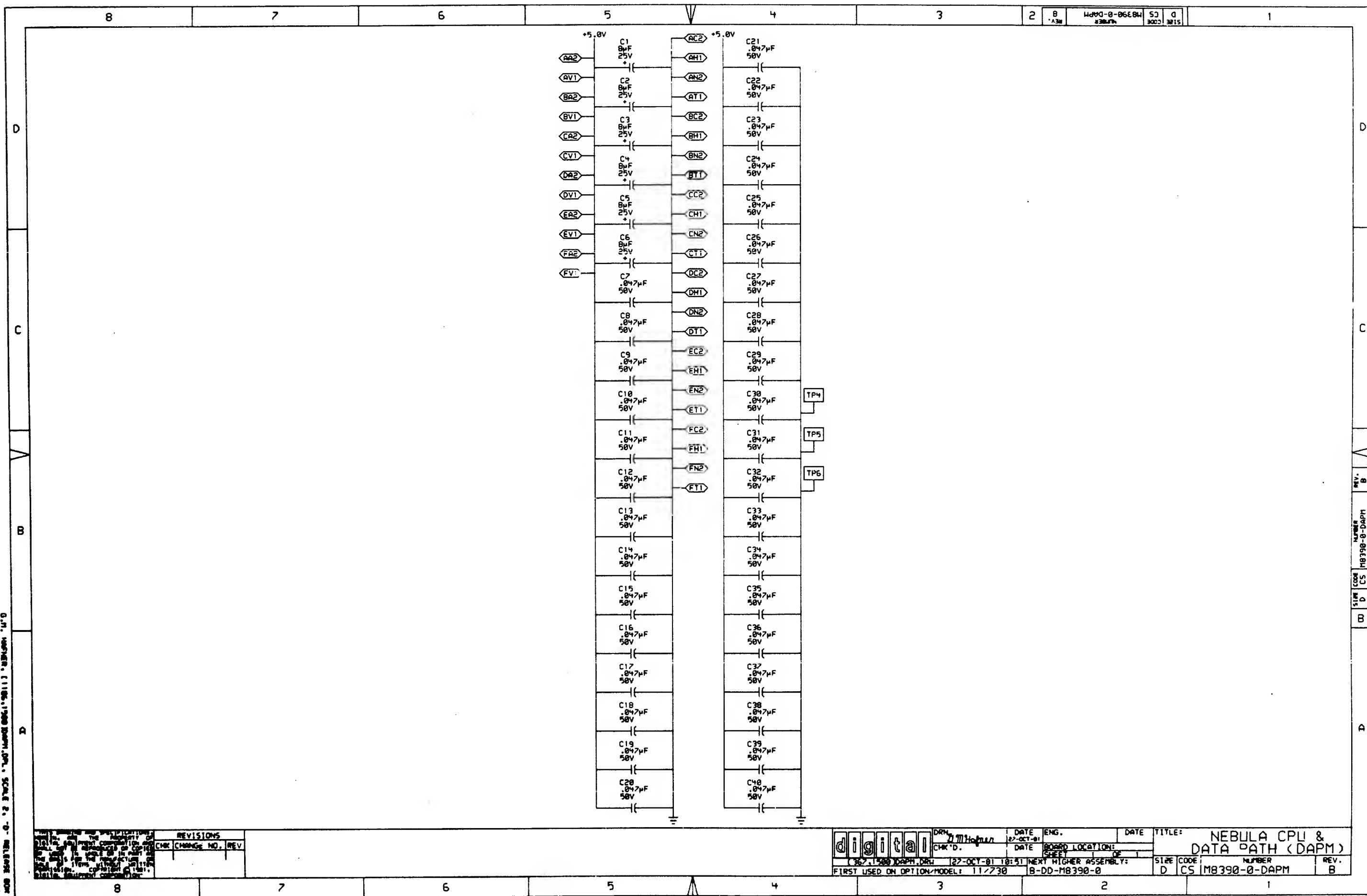
REV	CHK	CHANGE NO.	REV
1			

digital	DATE: 27-OCT-81	ENG: J. M. WARTER	DATE: 27-OCT-81	TITLE: NEBULA CPU & DATA PATH (DAPK)
1106, 1980 DAPK DPL	127-OCT-81 10:51	NEXT HIGHER ASSEMBLY:	SIZE: D	CODE: C5
FIRST USED ON OPTION/MODEL: 11/2730			NUMBER: M8390-0-DAPK	REV: B



G.N. WATNER, (11/86, 1988) DAPL, DPL, SCALE 2, "D" RELEASE 808
G.N. WATNER DAPL, DPL, (11/86, 1988) 27-OCT-81 11:29

0.1. NUMBER (118,1700 DAPM.DWG, SCALE 2.0 - 0.1. NUMBER 0001, 27-OCT-81 11:15)



PART NUMBER: 23-016J5-00

DEVICE TYPE: PAL16L8

SCHEMATIC SHEET 010-CS-M8390-0-DAPJ

LOCATION/DESCRIPTION: E111/ MICRO ADDRESS (10:04) INCREMENTER

ASSIGNED PIN NUMBER:

1= UPC.10	8= ENABLE.JUMP	15= NAO.07
2= UPC.09	9= CARRY.IN	16= NAO.08
3= UPC.08	10= GND	17= NAO.09
4= UPC.07	11= NC	18= NAO.10.A
5= UPC.06	12= NAO.04	19= NAO.10.B
6= UPC.05	13= NAO.05	20= VCC
7= UPC.04	14= NAO.06	

EQUATIONS:

IFC/ENABLE.JUMP/NAO.04=UPC.04=CARRY.IN
//UPC.04=CARRY.IN

IFC/ENABLE.JUMP/NAO.05=UPC.05=UPC.04=CARRY.IN
//UPC.05=UPC.04
//UPC.05=CARRY.IN

IFC/ENABLE.JUMP/NAO.06=UPC.06=UPC.05=UPC.04=CARRY.IN
//UPC.06=UPC.05
//UPC.06=UPC.04
//UPC.06=CARRY.IN

IFC/ENABLE.JUMP/NAO.07=UPC.07=UPC.06=UPC.05=UPC.04=CARRY.IN
//UPC.07=UPC.06
//UPC.07=UPC.05
//UPC.07=UPC.04
//UPC.07=CARRY.IN

IFC/ENABLE.JUMP/NAO.08=UPC.08=UPC.07=UPC.06=UPC.05=UPC.04
=CARRY.IN
//UPC.08=UPC.07
//UPC.08=UPC.06
//UPC.08=UPC.05
//UPC.08=UPC.04
//UPC.08=CARRY.IN

IFC/ENABLE.JUMP/NAO.09=UPC.09=CARRY.IN
//UPC.09=UPC.09
//UPC.09=UPC.07
//UPC.09=UPC.06
//UPC.09=UPC.05
//UPC.09=UPC.04
//UPC.09=UPC.08=UPC.07=UPC.06=UPC.05
=UPC.04=CARRY.IN

IFC/ENABLE.JUMP/UPC.10/NAO.10.A=CARRY.IN
//UPC.09
//UPC.08
//UPC.07
//UPC.06
//UPC.05
//UPC.04

IFC/ENABLE.JUMP/UPC.10/NAO.10.B=UPC.09=UPC.08=UPC.07=UPC.06
=UPC.05=UPC.04=CARRY.IN

PART NUMBER: 23-016J5-00

DEVICE TYPE: PAL16L8

SCHEMATIC SHEET 010-CS-M8390-0-DAPJ

LOCATION/DESCRIPTION: E111/ MICRO SEQUENCER CONTROL

ASSIGNED PIN NUMBER:

1= ERR.SUM	8= CSR.01	15=ENABLE.SP
2=I8.VALID	9= CSR.02	16=ENABLE.JUMP
3=PLX.IN	10= GND	17=ENABLE.UPC
4=JUMP.INSTR	11= CSR.01	18= PUSH.USTACK
5= CSR.19	12=ENABLE.IR.ROM	19=OR.OUT.2
6= STNC	13= CSR.00	20= VCC
7= CSR.04	14=ENABLE.JUMP.LO	

EQUATIONS:

IFC/ENABLE.IR.ROM=JUMP.INSTR=CSR.19=CSR.03=PLX.IN
//JUMP.INSTR=CSR.19=CSR.03=CSR.02=PLX.IN
//JUMP.INSTR=CSR.19=CSR.02=CSR.01=CSR.00
//JUMP.INSTR=CSR.19=CSR.03=CSR.02=CSR.00=I8.VALID

IFC/ENABLE.JUMP.LO=JUMP.INSTR=CSR.19=CSR.03=PLX.IN
//JUMP.INSTR=CSR.19=CSR.03=CSR.02=PLX.IN
//JUMP.INSTR=CSR.19=CSR.02=CSR.01=CSR.00
//JUMP.INSTR=CSR.19=CSR.03=CSR.02=CSR.00=I8.VALID

IFC/ENABLE.SP=JUMP.INSTR=CSR.04=CSR.03=CSR.01=CSR.00
//JUMP.INSTR=CSR.04=CSR.03=CSR.02=CSR.00
//JUMP.INSTR=CSR.04=CSR.03=CSR.02=ERR.SUM
//JUMP.INSTR=CSR.03=CSR.02=CSR.01=CSR.00
//JUMP.INSTR=CSR.03=CSR.02=CSR.01=CSR.00=I8.VALID
//JUMP.INSTR=CSR.04=CSR.03=CSR.02=CSR.01=CSR.00=STNC
//JUMP.INSTR=CSR.04=CSR.03=CSR.02=CSR.01=CSR.00=STNC

IFC/ENABLE.JUMP=JUMP.INSTR=CSR.03=PLX.IN
//JUMP.INSTR=CSR.03=CSR.02=PLX.IN
//JUMP.INSTR=CSR.02=CSR.01=CSR.00
//JUMP.INSTR=CSR.03=CSR.02=CSR.00=I8.VALID

IFC/ENABLE.UPC=CSR.04
//CSR.02=CSR.01=CSR.00=ERR.SUM
//CSR.02=PLX.IN
//CSR.02=CSR.01=CSR.00
//CSR.02=CSR.01=CSR.00
//CSR.02=CSR.01=CSR.00=STNC

IFC/ENABLE.PUSH.USTACK=JUMP.INSTR=CSR.03=CSR.02=CSR.01=CSR.00
//JUMP.INSTR=CSR.03=CSR.02=CSR.01=CSR.00=I8.VALID

IFC/ENABLE.OR.OUT.2=JUMP.INSTR=CSR.04=CSR.03=CSR.02=CSR.01=CSR.00=ERR.SUM
//JUMP.INSTR=CSR.03=CSR.02=CSR.01=CSR.00=I8.VALID
//JUMP.INSTR=CSR.04=CSR.02=CSR.01=CSR.00=STNC
//JUMP.INSTR=CSR.04=CSR.03=CSR.02=PLX.IN
//JUMP.INSTR=CSR.04=CSR.03=CSR.02=PLX.IN
//JUMP.INSTR=CSR.04=CSR.03=CSR.02=CSR.01=CSR.00
//JUMP.INSTR=CSR.04=CSR.03=CSR.02=CSR.01=CSR.00

PART NUMBER: 23-016J5-00

DEVICE TYPE: PAL16L8

SCHEMATIC SHEET 010-CS-M8390-0-DAPJ

LOCATION/DESCRIPTION: E50/ CC CC1/CC2

ASSIGNED PIN NUMBER:

1= CSR.17	8= CSR.19	15= COPY.CC
2= CSR.22	9= SIZE.REG.1	16= ALU.CC.F0
3= CSR.21	10= GND	17= ALU.CC.F1
4= CSR.20	11= SIZE.REG.0	18= DT.0
5= COMPAT.MODE	12= DATA.REQ	19= JUMP.INSTR
6= CSR.06	13= CSR.19	20= VCC
7= CSR.05	14= DT.1	

EQUATIONS:

IFC/CC1/DT.1=CSR.22=CSR.06=SIZE.REG.1
//CSR.22=CSR.21=CSR.20=CSR.19=CSR.19

IFC/CC1/DT.1=CSR.22=CSR.06=SIZE.REG.1
//CSR.21=CSR.05=SIZE.REG.1
//CSR.22=CSR.21=CSR.20=CSR.06
//CSR.22=CSR.21=CSR.20=CSR.06=CSR.05=SIZE.REG.1
//COMPAT.MODE

IFC/CC1/COPY.CC=CSR.22=CSR.21
//CSR.06
//CSR.05

IFC/CC1/ALU.CC.F0=CSR.22=CSR.06=CSR.05
//CSR.21=CSR.05=CSR.05=DT.1=DT.0
//CSR.22=CSR.06=CSR.05=DT.1=DT.0
//CSR.22=CSR.06=CSR.05=DT.1
//CSR.21=CSR.06=CSR.05=DT.1

IFC/CC1/ALU.CC.F1=CSR.22=CSR.06=CSR.05=DT.1
//CSR.21=CSR.05=CSR.05=DT.1

IFC/CC1/DT.0=CSR.22=CSR.06=SIZE.REG.1=SIZE.REG.0
//CSR.21=CSR.05=SIZE.REG.1=SIZE.REG.0
//CSR.22=CSR.21=CSR.20=CSR.06=CSR.05
//CSR.22=CSR.21=CSR.20=CSR.06=CSR.05=SIZE.REG.1
//SIZE.REG.0

IFC/CC1/JUMP.INSTR=CSR.22=CSR.21=CSR.20

23-016J5-00
23-018J5-00
23-019J5-00

DEVICE TYPE: PAL16A4

LOCATION/DESCRIPTION: E72/ BRANCH COND. ,CC

```

1= REGISTER_CLOCK      8= PSL_V              15= 18.0_SAVE
2= 18.0                 9= PSL_C              16= OPC_TYPE.0
3= DT.CLASS.0          10= GND              17= OPC_TYPE.1
4= CC.CLASS.1          11= REG_OUT.EN       18= BR.FALSE
5= CC.CLASS.0           12= RMODE.B          19= REGISTER.MODE
6= PSL.N                13= RMODE.A          20= VCC
7= PSL.Z                14= PRETEST

```

```
PRETEST1:=/CC.CLASS.1=PSL.2
+DT.CLASS.0=CC.CLASS.0=PSL.C
+DT.CLASS.0=CC.CLASS.0=PSL.N
+DT.CLASS.0=CC.CLASS.1=CC.CLASS.0=PSL.V
+DT.CLASS.0=CC.CLASS.0=PSL.N=PSL.V
+DT.CLASS.0=CC.CLASS.0=PSL.V
```

```
OPC.TYPE.0:=OC.CLASS.0
```

```
IF(VCC) /BR.FALSE:=/I8.0.SAVE=PRETEST
+I8.0.SAVE=/PRETEST
```

```
IFL VCC! /REGISTER.MODE! = /RMODE.A
```

DEVICE TYPE: PAL16R4

LOCATION/DESCRIPTION: E71/ I-STREAM DATA PROCESSING, R-DEST.

1= REGISTER.CLK	9= CSR_09	15= RBSUP.FLAG
2= T_31	9= CSR_09	16= GPR_DEST
3= L0_PSL	10= GND	17= COMPAT.MODE
4= R.MODE	11= REG.OUT.EN	18= OS_CTL_0
5= DECODE.INSTR	12= SET.RBSUP	19= OS_CTL_1
6= CSR_05	13= IRO.STATE	20= VCC
7= CSR_05	14= CH.IRD	

```
[IFVCC] /OS.CTL.1:=DECODE.INSTR=CSR.06~/COMPAT.MODE
+DECODE.INSTR=CSR.06~/CSR.05
+CM.IRD~/DECODE.INSTR
```

```
GPR.DEST1=DECODE.INSTR=CSR.05=R.MODE
DECODE.INSTR=GPR.DEST
CSR.05=GPR.DEST
```

```

/RSKUP.FLAG:=!RD.STATE
+ /SET.RSKUP= /RSKUP.FLAG

```

CM.IRD:=DECODE.INSTR=CSR.09=CSR.04=COMPAT.MODE

```
IFCVC1 IRD.STATE1=DECODE.INSTR=CSR.09=CSR.04
```

DEVICE TYPE: PAL16R4

LOCATION/DESCRIPTION: E53/ DATA TYPE CONTROL

1= CLK.REGS	9= MOT.CTL.1	15= D.01
2= DT.CLASS.1	9= MOT.CTL.0	16= D.06
3= DT.CLASS.0	10= GND	17= D.07
4= IRO.STATE	11= EN.STATE.REG	18= MOT.0
5= Y.01	12= SIZE.REG.0	19= MOT.1
6= Y.00	13= SIZE.REG.1	20= VCC
7= LOAD.STATE	14= D.09	

```

[FLVCC] /SIZE.REG.0:=0.00
[FLVCC] /SIZE.REG.1:=0.01
/0.00:=IRD.STATE=DT.CLASS.0
      +LOAD.STATE=T.00
      +/IRD.STATE=LOAD.STATE=0.00

```

```

D.01:=!RO.STATE=DT.CLASS.1
+LOAD.STATE=Y.01
+!RO.STATE=LOAD.STATE=D.01

```

$$0.051 = \text{TOT.CTL.1} - \text{TOT.CTL.0} \\ + \text{TOT.CTL.1} - \text{TOT.CTL.2} \div 0.05$$
$$0.021 = \text{NOT.CTL.1}$$

$$\text{NOT.CTL.1} = \text{NOT.CTL.0} = 0.02$$

```
IF[VCC] /NOT.0:=0.06
```

$$[F(VCC)] \cdot T_{DT.11} \approx 0.87$$

23-086K3-00
23-087K3-00
23-088K3-00

DEVICE TYPE: PAL1624

LOCATION/DESCRIPTION: E68/ OS EVEN NUMBERED BITS

ASSIGNED PIN NUMBER:

```

1= CLK.REGS      8= Y.2      15= OS.2
2= IB.6          9= Y.0      16= OS.4
3= IB.4         10= GND      17= OS.6
4= IB.2         11= REG.OUT.EM 18= /MODE.B
5= IB.0         12= OS.CTL.0 19= /LOAD.Y.TO.OS
6= Y.6          13= OS.CTL.1 20= VCC
7= Y.4          14= OS.0

```

EQUATIONS:

```
[F1VCC] RMODE.2:=05.CTL.1#18.4
+05.CTL.1#18.6#18.4
```

$$\begin{aligned} & \text{OS.6} := \text{OS.CTL.1} \times \text{OS.CTL.0} \times \text{18.6} \\ & + \text{OS.CTL.1} \times \text{OS.CTL.0} \times \text{OS.4} \\ & + \text{OS.CTL.1} \times \text{OS.CTL.0} \times \text{18.6} \\ & + \text{OS.CTL.1} \times \text{OS.CTL.0} \times \text{LOAD.Y.T0.OS} \times \text{OS.6} \\ & + \text{LOAD.Y.T0.OS} \times \text{Y.6} \end{aligned}$$

```
OS.4:=OS.CTL.1*OS.CTL.0*IB.4  
+OS.CTL.1*OS.CTL.0*OS.2  
+OS.CTL.1*OS.CTL.0*IB.4  
+OS.CTL.1*OS.CTL.0*LOAD.Y.TO.OS:=OS.4  
+LOAD.Y.TO.OS:=T.4
```

```

/OS.2:=/OS.CTL.1*/OS.CTL.0*/18.2
+/OS.CTL.1*/OS.CTL.0*/OS.0
+/OS.CTL.1*/OS.CTL.0*/18.2
+/OS.CTL.1*/OS.CTL.0*/LOAD.Y.TO.OS*/OS.2
+/LOAD.Y.TO.OS*/Y.2

```

```

/OS.0:=/OS.CTL.1*/OS.CTL.0*/18.0
+/OS.CTL.1*/OS.CTL.0*/18.0
+OS.CTL.1*/OS.CTL.0*/18.0
+OS.CTL.1*/OS.CTL.0*/LOAD.Y.TO.OS*/OS.0
+LOAD.Y.TO.OS*/Y.0

```

DEVICE TYPE: PAL16M4

SCHEMATIC SHEET #10-C5-113790-0-DAPH

LOCATION/DESCRIPTION: E49/ 06 600 NUMBERED BITS

ASSIGNED PIN NUMBERS

```

1= CLK.REBS          8= Y.03          15= OS.3
2= IS.7              9= Y.01          16= OS.5
3= IS.5              10= GND          17= OS.7
4= IS.3              11= REG.OUT.EN      18= RHODE.A
5= IS.1              12= OS.CTL.0      19= LOAD.Y.TO.OS
6= Y.02              13= OS.CTL.1      20= VCC
7= Y.05              14= OS.1

```

EQUATIONS:

```
IF[VCC] RMODE.A1=-05.CTL.1W/19.5W/18.3
      +05.CTL.1W/18.7W/18.5
```

```

/OS.7:=OS.CTL.1#/OS.CTL.0#/IB.7
+/OS.CTL.1#/OS.CTL.0#/OS.5
+OS.CTL.1#/OS.CTL.0#/IB.7
+OS.CTL.1#/OS.CTL.0#/LOAD.Y.TO.OS#/OS.7
+LOAD.Y.TO.OS#/Y.87

```

```

/OS.5:=/OS.CTL.1*/OS.CTL.0*/IB.5
+/OS.CTL.1*/OS.CTL.0*/OS.3
+OS.CTL.1*/OS.CTL.0*/IB.5
+OS.CTL.1*/OS.CTL.0*/LOAD.Y.TO.OS*/OS.5
+LOAD.Y.TO.OS*/Y.25

```

```

/OS.3:=/OS.CTL.1#/IB.3
+OS.CTL.1#/OS.CTL.0
+OS.CTL.1#/OS.CTL.0
+OS.CTL.1#/LOAD.Y.TO.OS#/OS.3
+LOAD.Y.TO.OS#/.03

```

```

/OS.1:=/OS.CTL.1#/OS.CTL.0#/18.1
+/OS.CTL.1#/OS.CTL.0#/18.7
-/OS.CTL.1#/OS.CTL.0#/18.1
+/OS.CTL.1#/OS.CTL.0#/LOAD.Y.TO.OS#/OS.1
+LOAD.Y.TO.OS#/Y.01

```

DEVICE TYPE: PAL16RM

SCHEMATIC SHEET WID-CS-88790-8-DAPJ

LOCATION/DESCRIPTION: E112 U STACK POINTER CONTROL

ASSIGNED PIN NUMBER:

```

1= CLK_REGS          8= NC          15=/SP.1
2= CSR.3             9= PRESET       16=/SP.2
3=/ENABLE.SP         10= GNO        17=/SP.3
4= NC                11= REG_OUT_ON  18=/ADRS.2
5= NC                12=/ADRS.0      19=/ADRS.3
6= NC                13=/ADRS.1      20= VCC
7= NC                14=/SP.0

```

EQUATIONS:

```
[FVCC] ADRS.0:=CSR.3#SP.1#SP.0
+SP.1#SP.0
+CSR.3#SP.1#SP.0
```

```
[FVCC] ADRS.11=/CSR.3/SP.1/SP.0
+CSR.3/SP.1/SP.0
+SP.1/SP.0
```

```
SP.01=ENABLE.SP*CSR.3*SP.1*SP.0*/PRESET
+ENABLE.SP*/CSR.3*SP.1*SP.0*/PRESET
+/ENABLE.SP*SP.0*/PRESET
+CSR.3*SP.1*SP.0*/PRESET
+CSR.3*SP.1*SP.0*/PRESET
```

```
SP.11=ENABLE.SP*CSR.3*SP.1*SP.0/PRESET
+ENABLE.SP*CSR.3*SP.1*SP.0/PRESET
+ENABLE.SP*SP.1*PRESET
+CSR.3*SP.1*SP.0/PRESET
+CSR.3*SP.1*SP.0/PRESET
```

```
SP_2:=ENABLE.SP<CSR_3m/SP_3m/SP_1m/SP_0m/PRESET
+ENABLE.SP<CSR_3m/SP_3m/SP_1m/SP_0m/PRESET
+SP_2m/SP_0m/PRESET
+SP_3m/SP_2m/SP_1m/PRESET
+/SP_3m/SP_2m/SP_1m/PRESET
+/ENABLE.SP<SP_2m/PRESET
+CSR_3m/SP_3m/SP_2m/PRESET
+CSR_3m/SP_3m/SP_2m/PRESET
```

```
SP.31=ENABLE.SP.3/CSR.3/SP.2=SP.1/SP.0=PRESET
+ENABLE.SP=CSR.3/SP.2=SP.1/SP.0=PRESET
+SP.3=SP.0=PRESET
+SP.3/SP.2/SP.1=PRESET
+SP.3/SP.2=SP.1/PRESET
+/ENABLE.SP=SP.3/SP.2=PRESET
+CSR.3/SP.3=SP.2/SP.2=PRESET
+/CSR.3=SP.3/SP.2=PRESET
```

```
[FVCC] ADRS.2:=CSR.3*SP.3*SP.1*SP.0
+CSR.3*SP.2
+SP.3*SP.2
+SP.2*SP.0
+SP.2*SP.1
```

```

IF{VOC} ADDR.3:=CSR.3*SP.2*SP.1*SP.0
+CSR.3*SP.3
+SP.3*SP.2
+SP.3*SP.0
+SP.3*SP.1

```

23-010K3-00
23-011K3-02
23-012K3-00

REVISIONS	
CHK	CHANGE NO. / PEV

digitel	PRN	DATE	ENG.	DATE	TITLE: DATA PATH ROM AND PAL LISTINGS			
	CH20	11-SEP-81	11-SEP-81					
		DATE	PLACE LOCATION	SHEET	OF	14		
OSK:ELDP05, T2PC 367, 1560111-SEP-81 15:12		NEXT HIGHER ASSEMBLY:			SIZE	CODE	NUMBER	REV.
FIRST USED ON CPTIQ-MODEL: 117230		B-DD-M8390-0-0			D	GL	M8390-0-0	A

PART NUMBER: 23-01K3-00
DEVICE TYPE: PAL16A4
SCHEMATIC SHEET 810-CS-M8390-0-0APH
LOCATION/DESCRIPTION: E37/ ALU N,2
ASSIGNED PIN NUMBER:

- | | | |
|-------------|----------------|----------------|
| 1= CLK.REGS | 8= 2.BYTE | 15= MPLIER.LSB |
| 2= N.LONG | 9= Y.02 | 16= ALU.Z |
| 3= N.WORD | 10= GND | 17= ALU.N |
| 4= N.BYTE | 11= REG.OUT.EN | 18= LOAD.Y-BUS |
| 5= Y.03 | 12= ALU.CC.F1 | 19= Q.SHF.LSB |
| 6= 2.LONG | 13= ALU.CC.F0 | 20= VCC |
| 7= 2.WORD | 14= NC | |

EQUATIONS:

MPLIER.LSB:=Q.SHF.LSB
ALU.Z:=ALU.CC.F1/LOAD.Y-BUS/2.BYTE
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/2.WORD
ALU.CC.F0:=ALU.CC.F1/LOAD.Y-BUS/2.LONG
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/2.BYTE
ALU.CC.F0:=ALU.CC.F1/LOAD.Y-BUS/2.WORD
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/ALU.Z
ALU.CC.F0:=ALU.CC.F1/LOAD.Y-BUS/ALU.Z
ALU.N1:=ALU.CC.F1/ALU.CC.F0/LOAD.Y-BUS/N.BYTE
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/N.WORD
ALU.CC.F0:=ALU.CC.F1/LOAD.Y-BUS/N.LONG
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/ALU.N
LOAD.Y-BUS:=Y.03

PART NUMBER: 23-01K3-00
DEVICE TYPE: PAL16A4
SCHEMATIC SHEET 810-CS-M8390-0-0APH
LOCATION/DESCRIPTION: E38/ ALU Y,C
ASSIGNED PIN NUMBER:

- | | | |
|-------------------|----------------|----------------|
| 1= REGISTER.CLOCK | 8= C.0 | 15= HALF.CARRY |
| 2= V.LONG | 9= Y.00 | 16= ALU.C |
| 3= V.WORD | 10= GND | 17= ALU.V |
| 4= V.BYTE | 11= REG.OUT.EN | 18= LOAD.Y-BUS |
| 5= Y.01 | 12= ALU.CC.F1 | 19= C.4 |
| 6= C.02 | 13= ALU.CC.F0 | 20= VCC |
| 7= C.05 | 14= NOT.ALU.C | |

EQUATIONS:

NOT.ALU.C:=ALU.CC.F1/ALU.CC.F0/LOAD.Y-BUS/C.0
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/C.16
ALU.CC.F0:=ALU.CC.F1/LOAD.Y-BUS/C.32
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/ALU.C
LOAD.Y-BUS:=Y.00
HALF.CARRY:=C.4
ALU.C1:=ALU.CC.F1/ALU.CC.F0/LOAD.Y-BUS/C.0
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/C.16
ALU.CC.F0:=ALU.CC.F1/LOAD.Y-BUS/C.32
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/ALU.C
LOAD.Y-BUS:=Y.00
ALU.V1:=ALU.CC.F1/ALU.CC.F0/LOAD.Y-BUS/V.BYTE
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/V.WORD
ALU.CC.F0:=ALU.CC.F1/LOAD.Y-BUS/V.LONG
ALU.CC.F1:=ALU.CC.F0/LOAD.Y-BUS/ALU.V
LOAD.Y-BUS:=Y.01

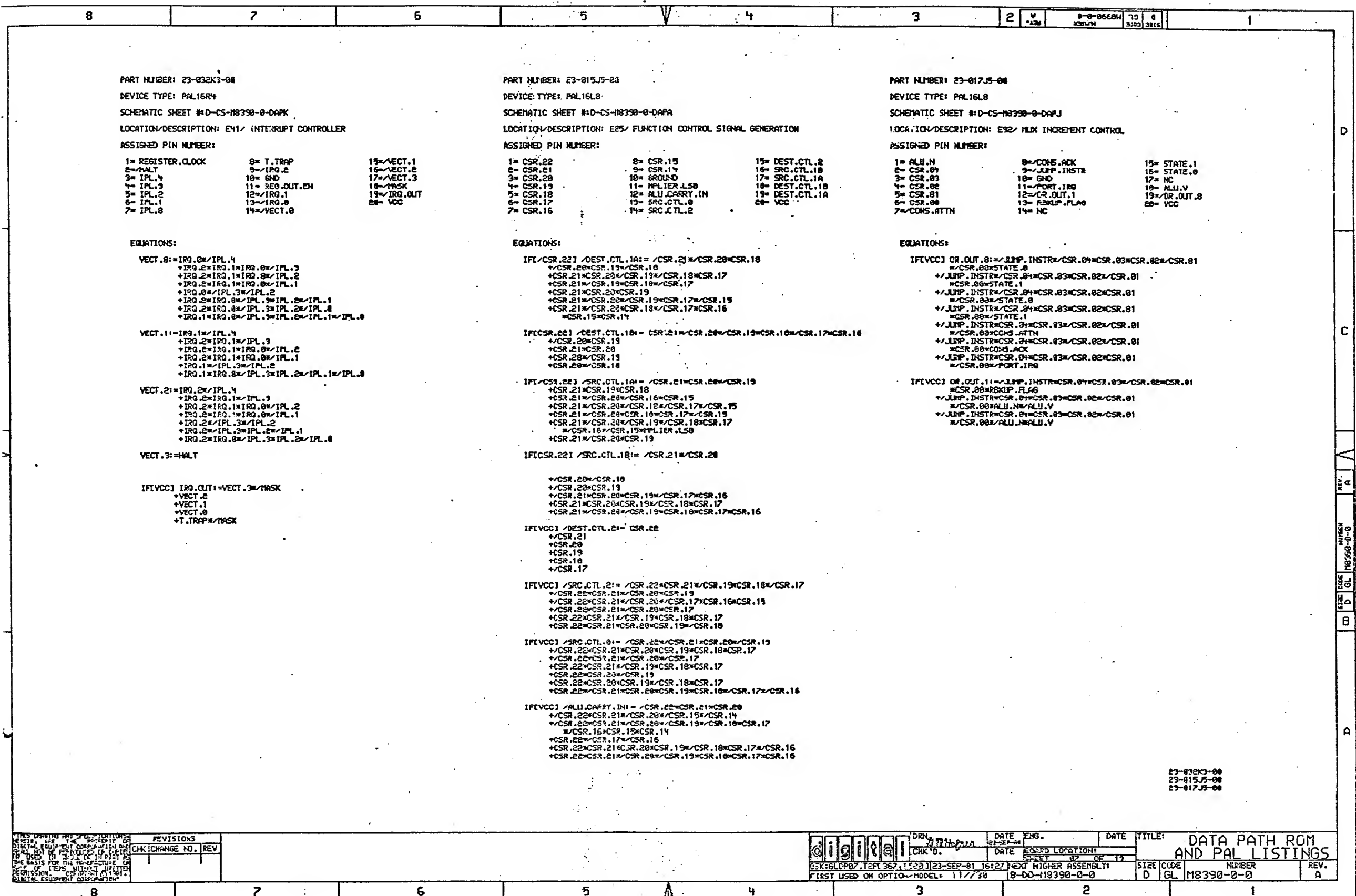
PART NUMBER: 23-01K3-00
DEVICE TYPE: PAL16A4
SCHEMATIC SHEET 810-CS-M8390-0-0APH
LOCATION/DESCRIPTION: E58/ PSL CC
ASSIGNED PIN NUMBER:

- | | | |
|---------------|----------------|-----------------|
| 1= CLK.REGS | 8= COPY.CC | 15= PSL.V |
| 2= ALU.N | 9= Y.01 | 16= PSL.Z |
| 3= ALU.Z | 10= GND | 17= PSL.N |
| 4= ALU.V | 11= REG.OUT.EN | 18= Y.00 |
| 5= ALU.C | 12= Y.02 | 19= LOAD.PSL.CC |
| 6= OPC.TYPE.1 | 13= Y.01 | 20= VCC |
| 7= OPC.TYPE.0 | 14= PSL.C | |

EQUATIONS:

PSL.C1:=LOAD.PSL.CC/Y.00
LOAD.PSL.CC:=COPY.CC/PSL.C
LOAD.PSL.CC:=COPY.CC/OPC.TYPE.1/OPC.TYPE.0/ALU.C
LOAD.PSL.CC:=COPY.CC/OPC.TYPE.1/OPC.TYPE.0/ALU.C
LOAD.PSL.CC:=COPY.CC/OPC.TYPE.1/OPC.TYPE.0/PSL.C
PSL.V1:=LOAD.PSL.CC/Y.01
LOAD.PSL.CC:=COPY.CC/PSL.V
LOAD.PSL.CC:=COPY.CC/ALU.V
LOAD.PSL.CC:=COPY.CC/OPC.TYPE.1
PSL.Z1:=LOAD.PSL.CC/Y.02
LOAD.PSL.CC:=COPY.CC/PSL.Z
LOAD.PSL.CC:=COPY.CC/ALU.Z
PSL.N1:=LOAD.PSL.CC/Y.03
LOAD.PSL.CC:=COPY.CC/PSL.N
LOAD.PSL.CC:=COPY.CC/ALU.N/ALU.V
LOAD.PSL.CC:=COPY.CC/OPC.TYPE.1/ALU.N
LOAD.PSL.CC:=COPY.CC/OPC.TYPE.0/ALU.N

23-01K3-00
23-01K3-00
23-01K3-00



THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DIGITAL EQUIPMENT CORPORATION.	REVISIONS	DATE	ENG.	DATE	TITLE
	CHK/CHANGE NO. REV	DATE	ENG.	DATE	BOARD LOCATION
		DATE	ENG.	DATE	TEST
		DATE	ENG.	DATE	TEST
23-032K3-00 23-015J5-00 23-017J5-00		DIGITAL		DATA PATH ROM AND PAL LISTINGS	
FIRST USED ON OPTIO-MODEL: 11/7/80		8-DD-118390-0-0		SIZE CODE NUMBER REV. D GL M8390-0-0 A	

PART NUMBER: 23-001KY-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET 010-CS-M8390-0-DAPF
LOCATION/DESCRIPTION: E54/ IR CONTROL
ASSIGNED PIN NUMBER:

1= REGISTER.CLOCK	8= LOAD.IB	15= PC.EQUALS.3
2= /REQ.IBFILL	9= /DATA.REQUEST	16= PC.0
3= Y.01	10= GND	17= PC.1
4= Y.00	11= REG.OUT.EN.L	18= /IB.VALID
5= DECODE.INSTR	12= /DATA.RECEIVED	19= /CLOCK.P2
6= CSR.00	13= /IB.LOADED	20= VCC
7= CPU.P2	14= STALL.ON.IB	

EQUATIONS:

```
IB.LOADED=LOAD.IB
+/IB.VALID=IB.LOADED

IB.VALID=LOAD.IB=CLOCK.P2
+/IB.LOADED=CLOCK.P2
+CPU.P2=/REQ.IBFILL/DECODE.INSTR=IB.VALID
+CPU.P2=/REQ.IBFILL/CSR.00=IB.VALID
+CPU.P2=/REQ.IBFILL/PC.EQUALS.3=IB.VALID
+/CPU.P2=IB.VALID

/PC.11=/REQ.IBFILL/Y.01=CPU.P2
+DECODE.INSTR=CSR.00=Y.01=CPU.P2
+/REQ.IBFILL/DECODE.INSTR/PC.1=CPU.P2
+/REQ.IBFILL/CSR.00/PC.1=CPU.P2
+/PC.1=CPU.P2

/PC.01=/REQ.IBFILL/Y.00=CPU.P2
+DECODE.INSTR=CSR.00=Y.00=CPU.P2
+/REQ.IBFILL/DECODE.INSTR/PC.0=CPU.P2
+/REQ.IBFILL/CSR.00/PC.0=CPU.P2
+/PC.0=CPU.P2

/PC.EQUALS.3=/REQ.IBFILL/Y.01=CPU.P2
+/REQ.IBFILL/Y.00=CPU.P2
+DECODE.INSTR=CSR.00=Y.01=CPU.P2
+DECODE.INSTR=CSR.00=Y.00=CPU.P2
+/REQ.IBFILL/DECODE.INSTR/PC.EQUALS.3=CPU.P2
+/REQ.IBFILL/CSR.00/PC.EQUALS.3=CPU.P2
+/PC.EQUALS.3=CPU.P2

/STALL.ON.IB=IB.VALID
+/REQ.IBFILL/DECODE.INSTR=CPU.P2

IF(VCC) DATA.RECEIVED=/REQ.IBFILL
+DECODE.INSTR=CSR.00=PC.EQUALS.3
+DATA.REQUEST
```

PART NUMBER: 23-002KY-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET 010-CS-M8390-0-DAPX
LOCATION/DESCRIPTION: E55/ MISC CONTROL
ASSIGNED PIN NUMBER:

1= REGISTER.CLOCK	8= RESET	15= STATE.1
2= MISC.INSTR	9= /IRO.STATE	16= CPU.ACK
3= CSR.15	10= GND	17= CPU.ATTN
4= CSR.14	11= REG.OUT.EN	18= UCS.PAGE
5= CSR.13	12= PORT.INSTR	19= /SET.RBKUP
6= CSR.12	13= SEL.ACC	20= VCC
7= CSR.10	14= STATE.0	

EQUATIONS:

```
IF(VCC) SET.RBKUP=MISC.INSTR/CSR.10/CSR.15/CSR.14/CSR.13
+CSR.12

/UCS.PAGE=MISC.INSTR/CSR.10/CSR.15/CSR.14/CSR.13/CSR.12
+/MISC.INSTR/UCS.PAGE
+CSR.10/UCS.PAGE
+CSR.15/UCS.PAGE
+CSR.14/UCS.PAGE
+CSR.13/UCS.PAGE
+CSR.12/UCS.PAGE
+RESET

/CPU.ATTN=MISC.INSTR/CSR.10/CSR.15/CSR.14/CSR.13/CSR.12
+/MISC.INSTR/CPU.ATTN
+CSR.10/CPU.ATTN
+CSR.15/CPU.ATTN
+CSR.14/CPU.ATTN
+CSR.13/CPU.ATTN
+CSR.12/CPU.ATTN
+RESET

/CPU.ACK=MISC.INSTR/CSR.10/CSR.15/CSR.14/CSR.13/CSR.12
+/MISC.INSTR/CPU.ACK
+CSR.10/CPU.ACK
+CSR.15/CPU.ACK
+CSR.14/CPU.ACK
+CSR.13/CPU.ACK
+CSR.12/CPU.ACK
+RESET

/STATE.11=/IRO.STATE
+/MISC.INSTR/CSR.10/CSR.15/CSR.13/CSR.12
+/MISC.INSTR/CSR.10/CSR.15/CSR.14/CSR.13
+/MISC.INSTR/STATE.1
+CSR.10/STATE.1
+CSR.15/STATE.1
+CSR.13/STATE.1
+CSR.12/STATE.1

/STATE.01=/IRO.STATE
+/MISC.INSTR/CSR.10/CSR.15/CSR.14/CSR.13
+/MISC.INSTR/CSR.10/CSR.15/CSR.14/CSR.12
+/MISC.INSTR/STATE.0
+CSR.10/STATE.0
+CSR.15/STATE.0
+CSR.13/STATE.0
+CSR.12/STATE.0

/SEL.ACC=MISC.INSTR/CSR.10/CSR.15/CSR.14/CSR.13/CSR.12
+/MISC.INSTR/SEL.ACC
+CSR.10/SEL.ACC
+CSR.15/SEL.ACC
+CSR.14/SEL.ACC
+CSR.13/SEL.ACC
+CSR.12/SEL.ACC
+RESET

IF(VCC) /PORT.INSTR=MISC.INSTR
+/CSR.10
```

PART NUMBER: 23-003KY-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET 010-CS-M8390-0-DAPX
LOCATION/DESCRIPTION: E57, E59, E118/ MICRO-PC-FIVE BIT SLICE
ASSIGNED PIN NUMBER:

1= CLK.UPC	8= /P2	15= UPC.2
2= /D.1	9= PARAL.LD.CSR	16= UPC.3
3= /D.3	10= GND	17= UPC.4
4= /D.2	11= EN.UPC.L	18= NC
5= /D.1	12= SI	19= PROP.L/50
6= /D.0	13= UPC.0	20= VCC
7= /P1	14= UPC.1	

EQUATIONS:

```
/UPC.01=PARAL.LD.CSR/SI
+PARAL.LD.CSR/P1=2D.0
+PARAL.LD.CSR/P1=0.0
+PARAL.LD.CSR/P2=0.0

/UPC.11=PARAL.LD.CSR/UPC.0
+PARAL.LD.CSR/P1=2D.0.0D.1
+PARAL.LD.CSR/P1=0.0.1
+PARAL.LD.CSR/P2=0.0.1
+PARAL.LD.CSR/P2=0.0.1

/UPC.21=PARAL.LD.CSR/UPC.1
+PARAL.LD.CSR/P1=2D.0.0D.1D.2
+PARAL.LD.CSR/P1=0.0.2
+PARAL.LD.CSR/P2=0.0.2
+PARAL.LD.CSR/P2=0.0.2
+PARAL.LD.CSR/P2=0.1D.0.2

/UPC.31=PARAL.LD.CSR/UPC.2
+PARAL.LD.CSR/P1=2D.0.0D.1D.2D.3
+PARAL.LD.CSR/P1=0.0.3
+PARAL.LD.CSR/P2=0.0.3
+PARAL.LD.CSR/P2=0.0.3
+PARAL.LD.CSR/P2=0.1D.0.3
+PARAL.LD.CSR/P2=0.2D.0.3

/UPC.41=PARAL.LD.CSR/UPC.3
+PARAL.LD.CSR/P1=2D.0.0D.1D.2D.3D.4
+PARAL.LD.CSR/P1=0.0.4
+PARAL.LD.CSR/P2=0.0.4
+PARAL.LD.CSR/P2=0.0.4
+PARAL.LD.CSR/P2=0.1D.0.4
+PARAL.LD.CSR/P2=0.2D.0.4
+PARAL.LD.CSR/P2=0.3D.0.4

IF(VCC) /PROP.L/50=PARAL.LD.CSR/UPC.4
+PARAL.LD.CSR/P2=0.0D.1D.2D.3D.4
```

23-001KY-00
23-002KY-00
23-003KY-00

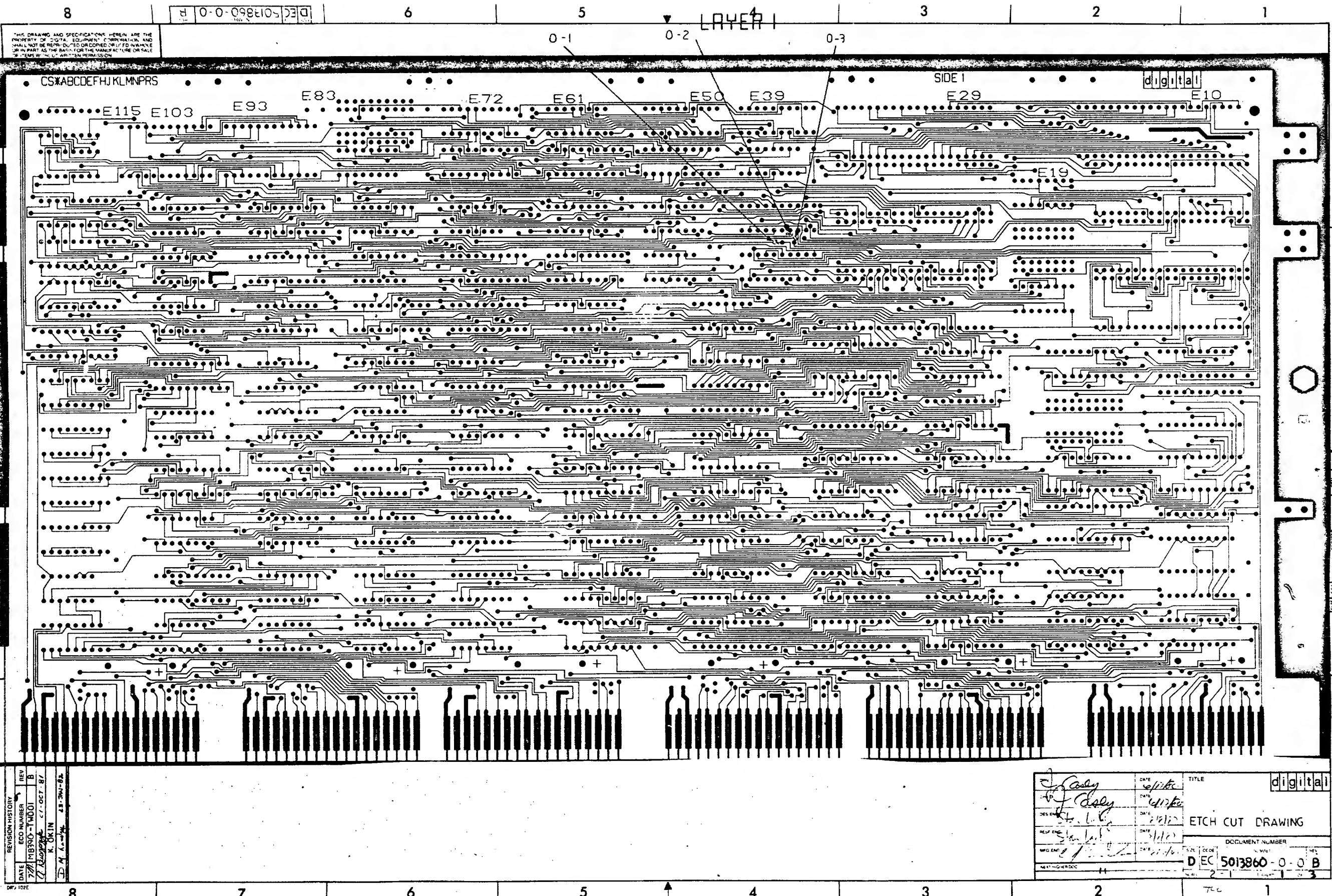
THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DIGITAL EQUIPMENT CORPORATION.

REVISIONS
CHANGE NO. REV

digital

DATE	ENG.	DATE	TITLE
11-SEP-81			DATA PATH ROM AND PAL LISTINGS
DATE	DESIGN LOCATION	SHEET	OF
11-SEP-81	1512	15	14
DATE	NEXT HIGHER ASSEMBLY	SIZE	CODE
11-SEP-81	1512	D	GL
DATE	FIRST USED ON OPTION MODEL	NUMBER	REV.
11-SEP-81	1512	M8390-0-0	A





THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION, AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

DEC 5013860-0-0 B

DATE 10/1/72		TITLE digital	
DATE 10/1/72		ETCH CUT DRAWING	
DATE 10/1/72		DOCUMENT NUMBER DEC 5013860-0-0 B	
DATE 10/1/72		REV 1	

DEC 5013860-0-0 B

8

DEC 5013860-0-0 B

6

5

4

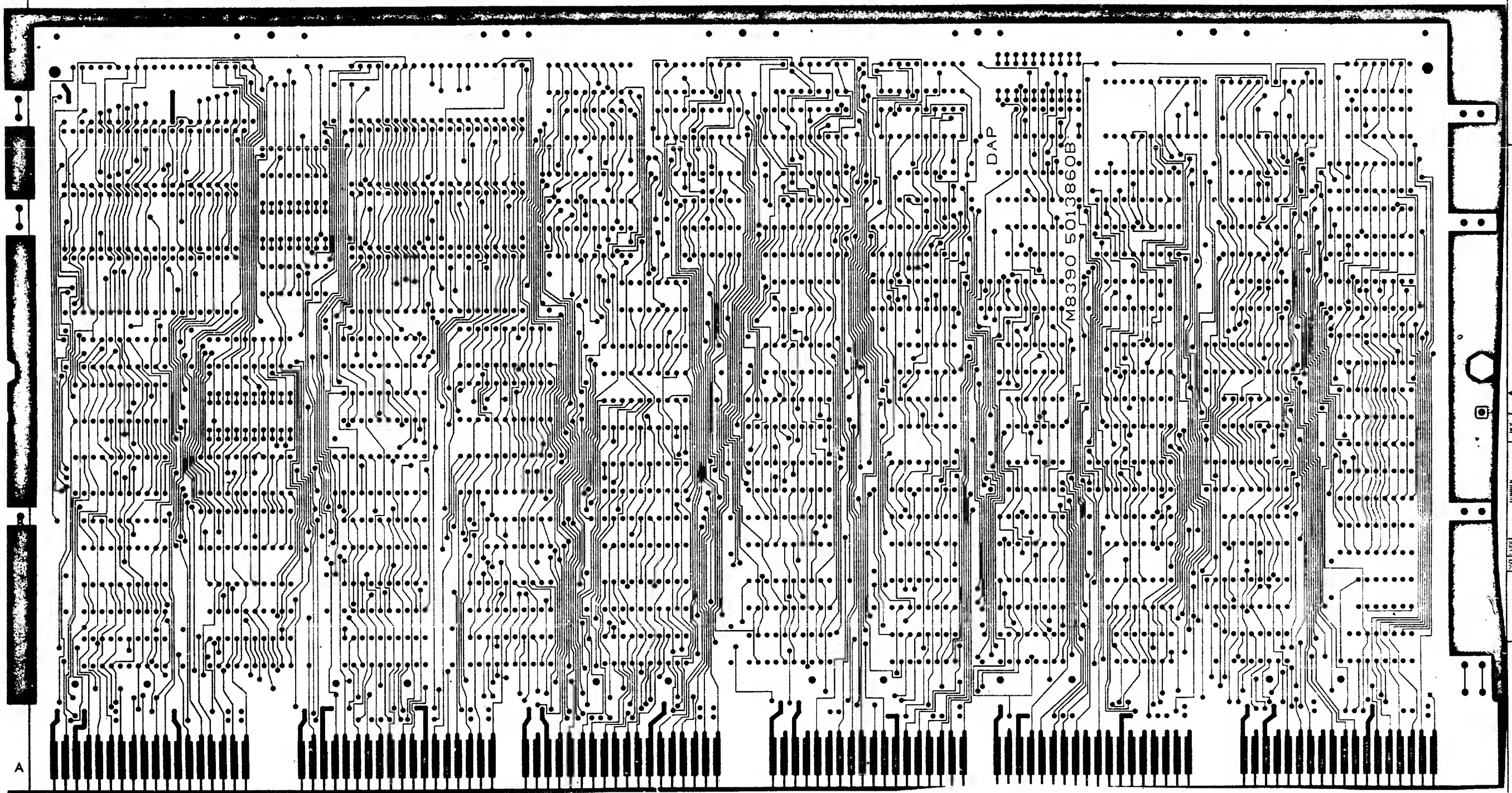
3

2

1

THIS DRAWING AND SPECIFICATION HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DIGITAL EQUIPMENT CORPORATION.

834AJ



REVISION HISTORY		
DATE	ECO NUMBER	REV

ETCH CUT DRAWING

DOCUMENT NUMBER		
SIZE	CODE	NUMBER
DEC	5013860-0-0	B
SCALE	2 -	SHEET 2 OF 2

8

7

6

5

4

3

2

1

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1980 DIGITAL EQUIPMENT CORPORATION

REWORK INSTRUCTIONS

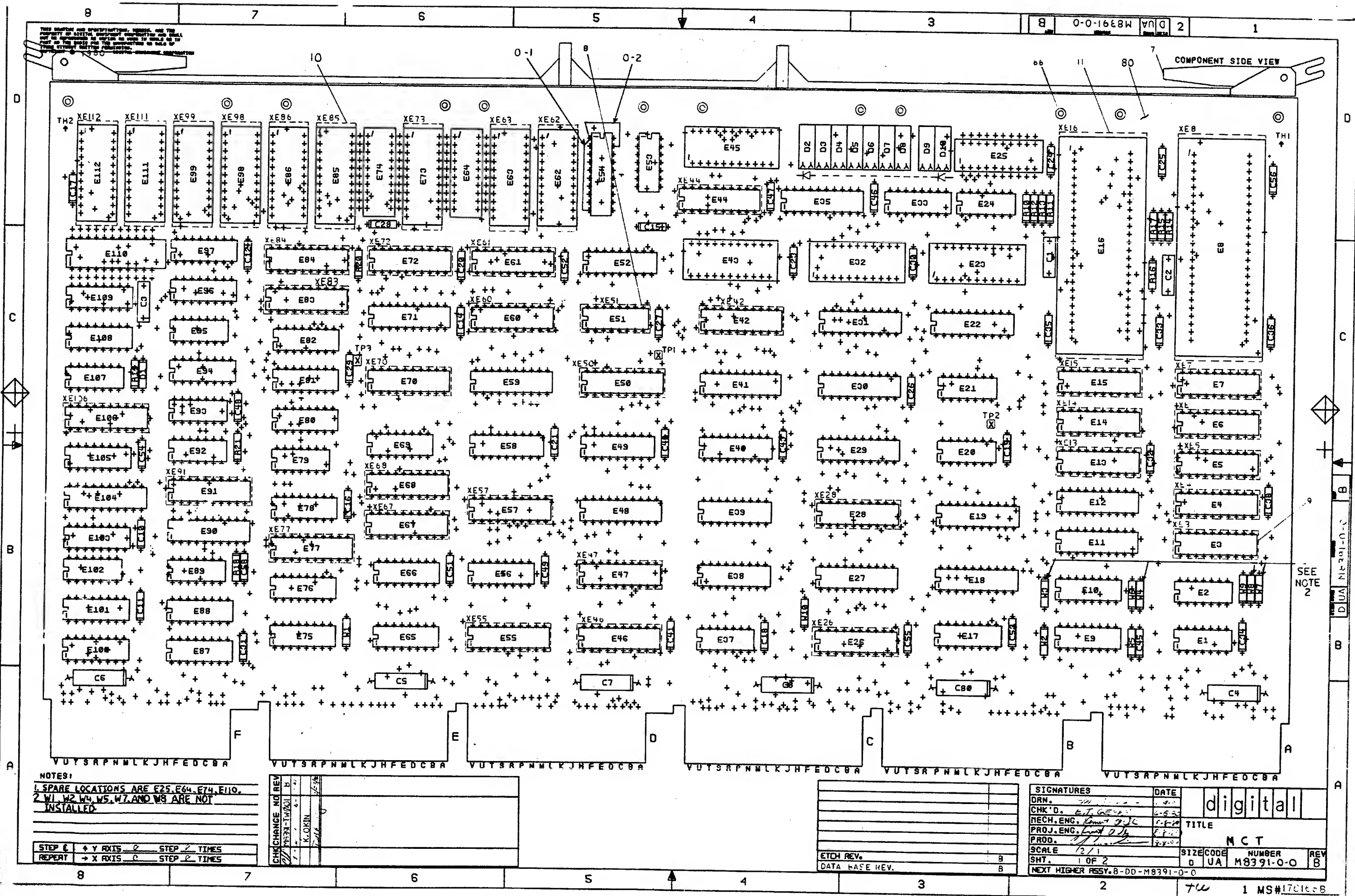
ETCH CUTS SIDE 1:

- 0-1 CUT THE ETCH, ON SIDE ONE, BETWEEN E73-01 AND PTH, BELOW E37-06, ABOVE AND TO THE LEFT OF PTH NEAR E36-15.
- 0-2 CUT THE ETCH, ON SIDE ONE, BETWEEN E73-03 AND E37-07 NEAR E37-07.
- 0-3 CUT THE ETCH, ON SIDE ONE, BETWEEN E73-04 AND E37-08 NEAR E37-07.

REVISION HISTORY		
DATE	ECO NUMBER	REV.

TITLE
ETCH CUT DRAWING

DOCUMENT NUMBER		
SIZE	CODE	NUMBER
D	EC	5013860-0-0
SCALE 2-1		SHEET 3 of 3



8

0-0-1688W710

6

5

4

3

2

1

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT 1970 DIGITAL EQUIPMENT CORPORATION

REWORK INSTRUCTIONS

WIRE ADDS SIDE 1:

0-1 FROM E54-1 TO E54-10

0-2 FROM E54-1 TO E54-19

~~0-3 FROM E53-1 TO E91-11~~

~~0-4 FROM E53-2 TO E105-7~~

~~0-5 FROM E53-3 TO E108-12~~

ECO # M8391-TW001

1-1 STEPS 0-3 THROUGH 0-5 HAVE BEEN
REMOVED AS PER ECO M8391-TW001.

D

D

C

C

B

B

A

A

REVISION HISTORY		
DATE	ECO NUMBER	REV.

8

7

6

5

4

3

2

1

TITLE

M C T

DOCUMENT NUMBER

D U A M8391-0-0 B

SCALE 2-1 SHEET 2 OF 2

AUTOMATED BY PRTLST.3M(41)

P A R T S L I S T

SHEET A1 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	80	D-MD-5013893-0-0	5013893-00	NEBULA MCT	1	
2	79		1000064-00	3.9MFD 10V 10% S.TANT	1	C3
3	3		1012084-01	8 MFD 25V +75-10% AL EL	5	C4-C8,C80
4	3		1012784-00	.047 MFD 50V +80-20% CER	41	C10-C12,C14-C21,C23-C36,C38,C40, C41,C43,C45-C49,C51-C56,C58
5	4		1013466-11	.22 MFD 50V +80-20% Z5U CER	2	C1,C2
6	5		1105796-00	1N 4004 PIV=400 I=1A D041 SP	1	D1
7	5		1112689-00	LED .8MCD 16MA VF=5V	9	D2-D10
8	5		1215006-02	SKT,IC 16PIN DIP TIN PLATE	1	XE51
9	5		1215006-04	SKT,IC 20PIN DIP TIN PLATE	28	XE3-XE7,XE13-XE15,XE26,XE28, XE42,XE44,XE46,XE47,XE50,XE55, XE57,XE60,XE61,XE67,XE68,XE70, XE72,XE77,XE83,XE84,XE91,XE106, XE62,XE63,XE73,XE85,XE86,XE98, XE99,XE111,XE112
10	10		1215006-05	SKT,IC 22PIN DIP TIN PLATE	9	XE8,XE16
11	11		1215924-00	SKT,IC 48PIN DIP GOLD PLATE	2	
12	12	SEE NOTE 1	1215935-00	GASKET THERMAL .50"X.80"	2	
13	13	SEE NOTE 2	1215936-00	HEAT SINK, FORCED CONVECTION	2	
14	14		1215988-02	HANDLE,MODULE,HEX TWO EJECTORS	1	
15	14		1300229-00	100.0 .25 W 5.0 % CC	3	R18,R20,R21
16	16		1302377-00	39.0 .25 W 5.0 % CC	8	R10-R17
17	16		1302514-00	39.0 K .25 W 5.0 % CC	1	R19
18	17		1311003-02	R NETWORK 14-330 14-680 16PIN	1	E65
19	17		1312628-00	R NETWORK 14-176.5 14-275 16PIN	4	E56,E78,E88,E100
20	18		1616322-00	DELAY= 75NS,STAPS	1	E2
21	19		1910532-00	74500 NAND GATE-QUAD 2IN	1	E33
22	19		1910534-00	74504 INVERTER GATE-HEX 1I	2	E79,E102
23	20		1910548-00	745157 MUX 1 OF 2 (QUAD)	1	E69
24	20		1910549-00	745158 MUX 1 OF 2 (QUAD)	1	E97
25	23		1910550-00	745174 FF-D HEX	1	E105

REVISION HISTORY		BASIC PART NO: M8391	
ENG:	ECO NUMBER	REV	SECTION A OF A
---	INITIAL	A	SECTION VARIATION INDEX
KO	M8391-TW001	B	[A] 00
			[B]
			[C]
			[D]
			[E]
			[F]
			[G]
			[H]
			[I]
			[J]
			[K]
			[L]
			[M]
			[N]

DRN:	J.FERGUSON	DATE:	14-MAR-80
CHK'D:	E.T.GERRY	DATE:	14-MAR-80
DES.ENG:	K.OKIN	DATE:	22-APR-80
RESP.ENG.:	K.OKIN	DATE:	22-APR-80
MFG.ENG.:	J.CONSIDINE	DATE:	8-AUG-80
ASSEMBLY NUMBER:	D-UA-M8391-0-0	TOP DOCUMENT NUMBER:	B-DD-M8391-0-0

TITLE	D I G I T A L
PARTS LIST	
MCT	
DOCUMENT NUMBER	REV
SIZE: CODE: NUMBER	
K PL M8391-0-DBP	B
FILE NAME:	EDIT #
Z1270B.PLS	17

"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1982. DIGITAL EQUIPMENT CORPORATION"

AUTOMATED BY PRTLST.3M(41)

P A R T S L I S T

SHEET 02 OF 03

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
26	24	1910956-00	74S151 MUX 1 OF 8	4	E94, E96, E108, E109
27	25	1911116-00	DEC 8837 RECEIVER, BUS, HEX, UN	1	E101
28	26	1911573-00	74S280 PARITY GEN/CHKR, 9BIT	1	E20, E21
29	27	1911579-00	8641 TRANSCEIVER, BUS, QUA	3	E66, E75, E76, E80, E81, E87, E103
30	28	1911641-00	SN 74S257 MUX, QUAD 2 TO 1	3	E9, E10, E17
31	29	1911676-00	74S139 DECODER-DUAL TWO-INP	1	E81
32	30	1911712-00	74S51 AND-OR GATE-INVERT D	1	E107
33	31	1912388-00	74S02 NOR GATE-QUAD 2IN, PO	2	E24, E95
34	32	1912389-00	74S08 AND GATE-QUAD 2IN, PO	2	E53, E92
35	33	1912697-00	LS174 FF-D HEX W/CLEAR	1	E33
36	34	1912746-00	DEC 74S37 NAND GATE-QUAD 2IN	1	E37
37	35	1912799-00	LS00 NAND-GATE-QUAD 2IN, P	1	E89
38	36	1913670-00	74S373 LATCH 8BIT TRASP TR	2	E59, E71
39	37	1913671-00	74S374 FF-D OCTAL TRISTATE	2	E90, E104
40	38	1913888-00	DC 102A EQUALS CHECKER 8BIT	2	E30, E35
41	39	1914214-00	LS374 FF-D OCTAL EDGE TRIG	2	E11, E12
42	40	1914705-00	DC 631B BIPOLAR, LS, 400-GATE	2	E8, E16
43	41	1915019-00	74S38 NAND BUFFER-QUAD 2IN	1	E1
44	42	1915193-00	LS244 DRIVER, LINE, OCTAL, T	6	E18, E19, E22, E27, E31, E54
45	43	1915218-00	LS245 TRANSCEIVER, BUS, OCT	3	E29, E41, E48
46	44	1915697-00	RAM 256X4 TRI-STATE	4	E23, E32, E43, E45
47	45	2116957-02	1K MOS RAM 70NS 1	6	E38-E40, E49, E52, E58
48	46	23946A9-00	A9-01	1	E51
49	47	23003K5-00	K5-01	1	E77
50	48	23005K4-00	K4-01	1	E42
51	49	23006K4-00	K4-01	1	E75
52	50	23007K4-00	K4-01	1	E28
53	51	23008K4-00	K4-01	1	E83
54	52	23010K4-00	K4-01	1	E57
55	53	23032D2-00	D2-01	1	E99
56	54	23033D2-00	D2-01	1	E112
57	55	23034D2-00	D2-01	1	E85
58	56	23035D2-00	D2-01	1	E62
59	57	23017K3-00	K3-01	8	E3-E7, E13-E15
60	58	23036D2-00	D2-01	1	E98
61	59	23018K3-00	K3-01	2	E47, E50
62	60	23037D2-00	D2-01	1	E63
63	61	23019K3-00	K3-01	3	E26, E67, E70
64	62	23039D2-00	D2-01	1	E86
65	63	23025K3-00	K3-01	1	E60
66	64	23039D2-00	D2-01	1	E73
67	65	23056K3-00	K3-01	1	E91
68	66	23040D2-00	D2-01	1	E111
69	67	23060K3-00	K3-01	1	E68
70	68	23023K3-00	K3-01	1	E106
71	69	23061J5-00	J5-01	1	E61
72	70	23025J5-00	J5-01	1	E44
73	71	23042J5-00	J5-01	1	E46

D	I	G	I	T	A	L	TITLE	MCT	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8391-0-DBP	B

AUTOMATED BY PRTLST.3M(41)

P A R T S L I S T

SHEET A3 OF A3

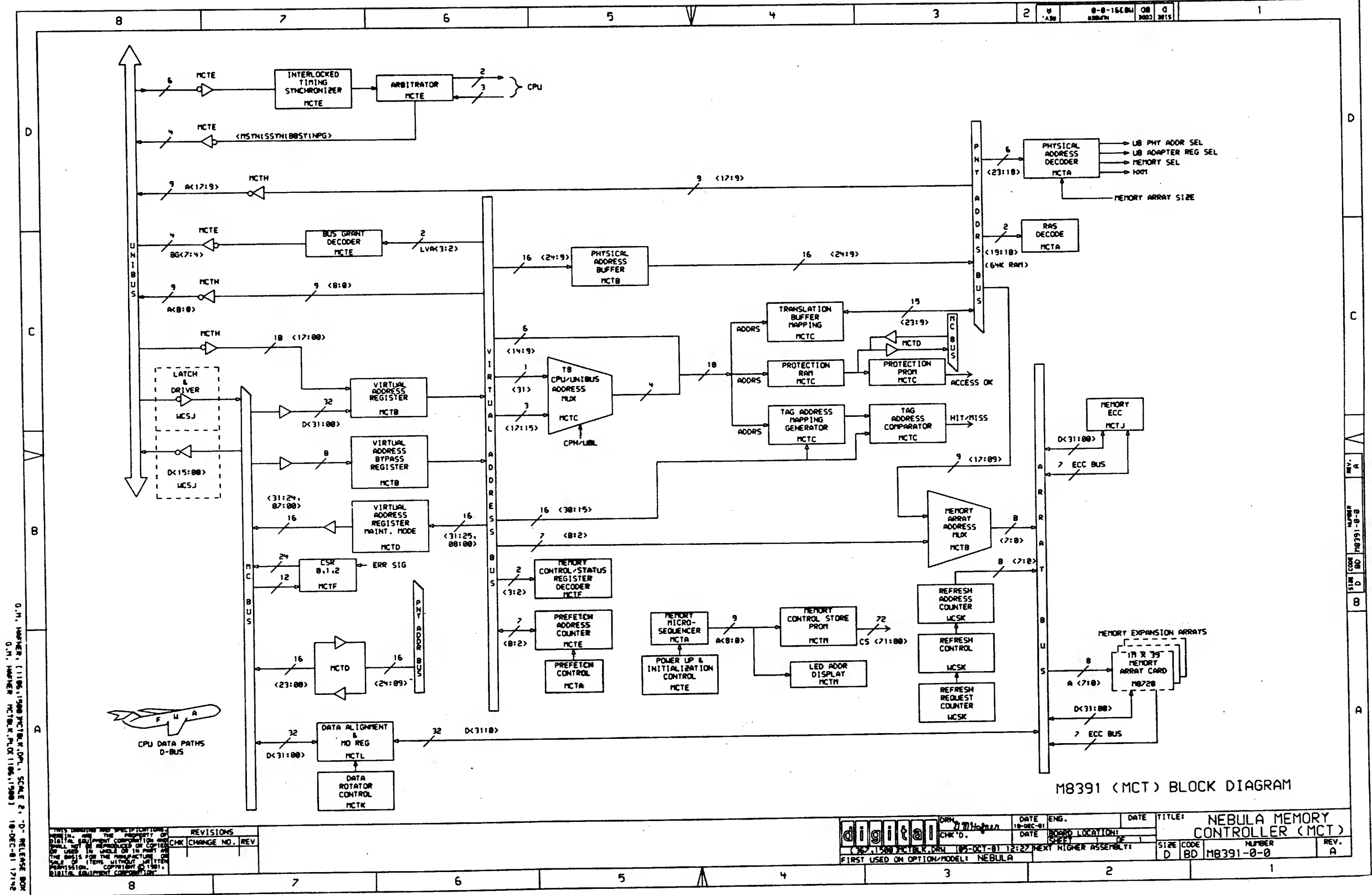
LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
74	64		23043J5-00	J5-01 PAL, LOGIC, CONT	1	E55
75	65		23044J5-00	J5-01 PAL, LOGIC, CONT	1	E84
76	66		9009000-00	EYELET, ROLL FLANGE .12100X .156	12	
77	67		9009149-00	PIN, STAKING, P.C. BOARD, .025 X	3	TP1-TP3
78	68		9009185-00	JUMPER, WIRE, INSULATED, BLACK 8	4	W3, W6, W9, W10
79	81		9105740-55	WIRE (WRAP) 30AWG ULI423	A/R	

80 NOTE: NOTE 1 ITEM 12 USED IN REF DES E8, E16

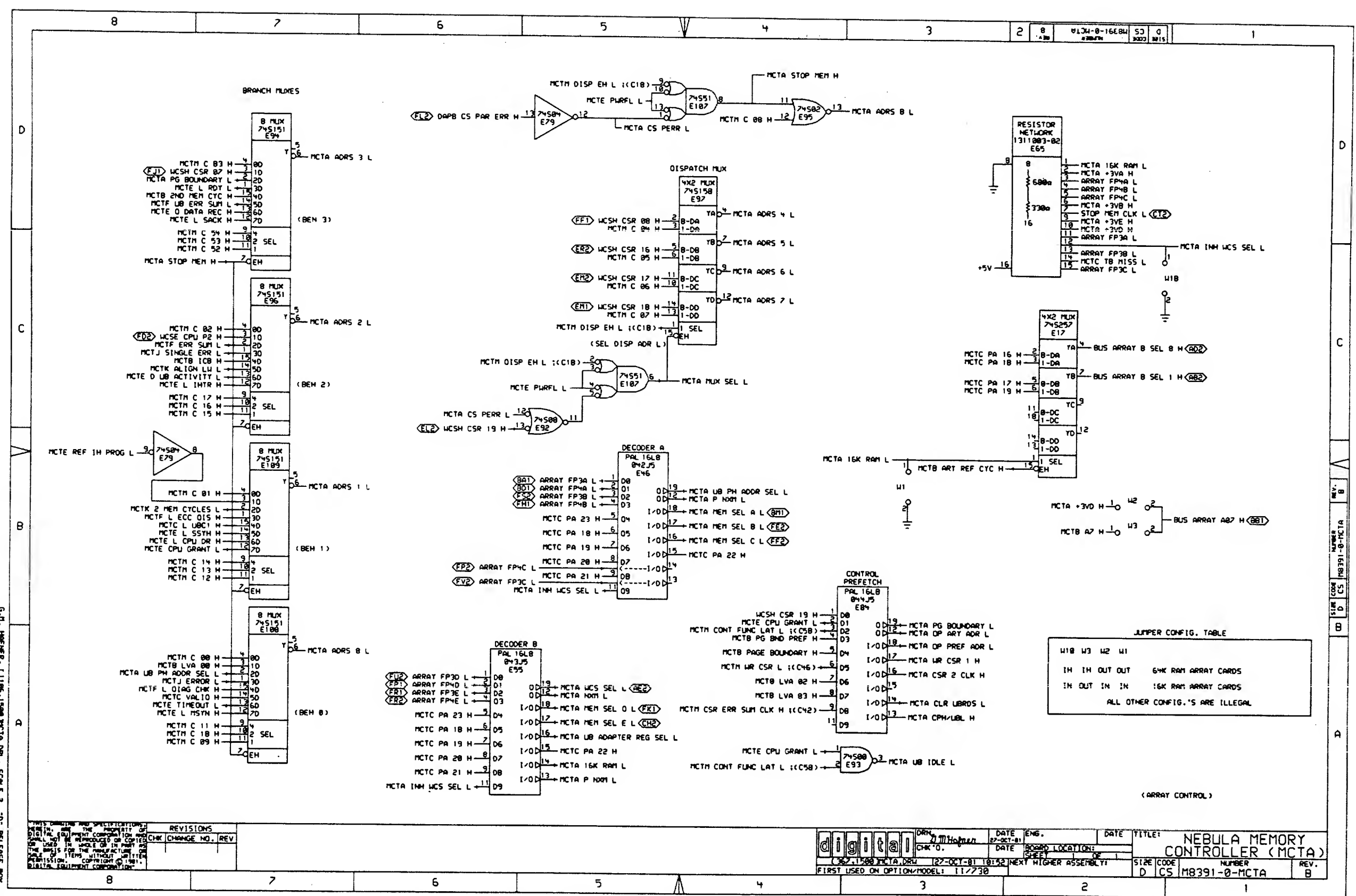
81 NOTE: NOTE 2 ITEM 13 USED IN REF DES E8, E16

***** RELEASABLE/NO REF DES CHECK *****

D	I	G	I	T	A	L	TITLE	MCT	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8391-0-DBP	B



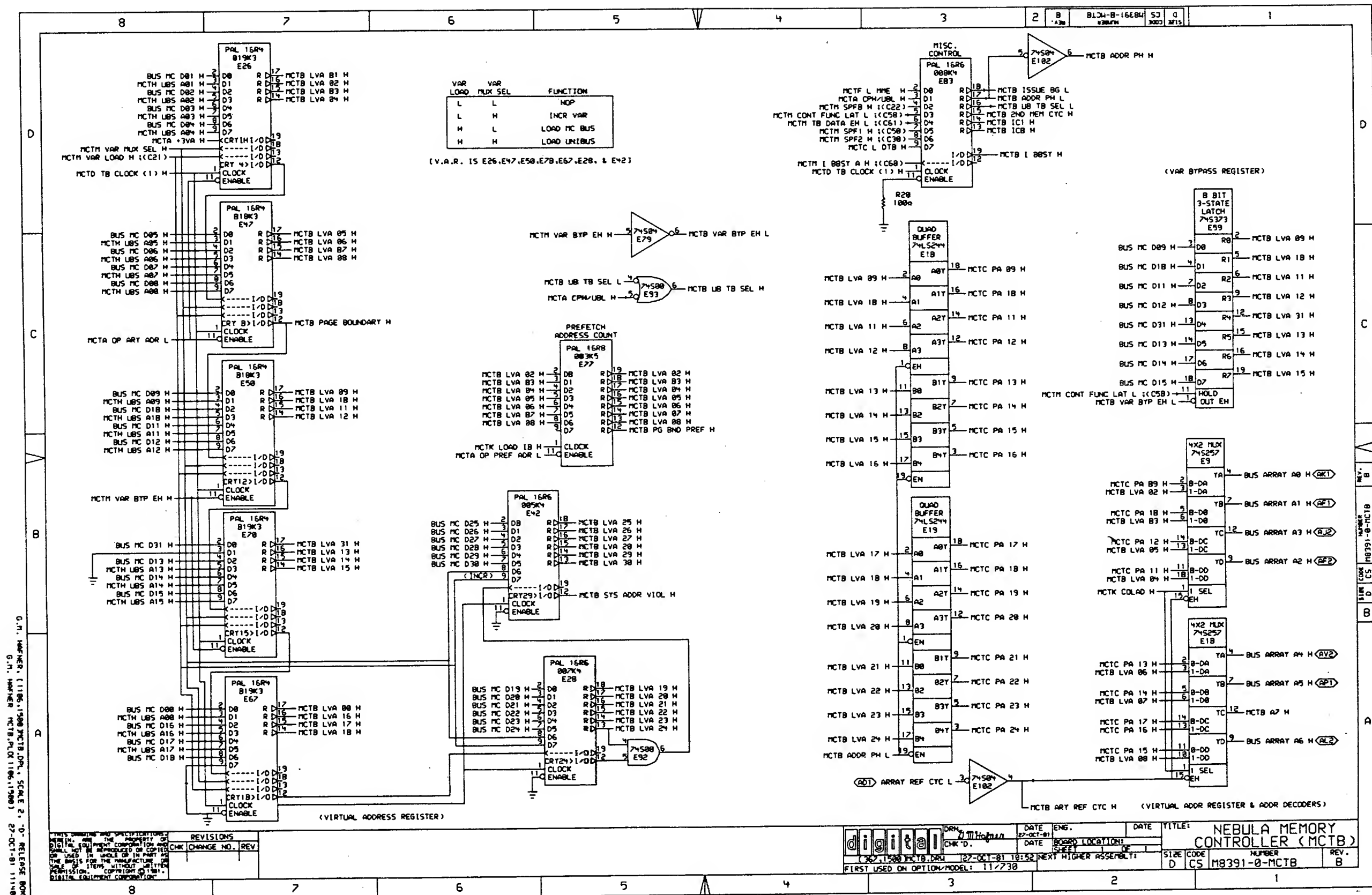
G.M. WARNER, (11061700) PICTOR, D.P., SCALE 2, "D" RELEASE BOX
G.M. WARNER, PICTOR, P.D. (11061700) 10-DEC-81 17142



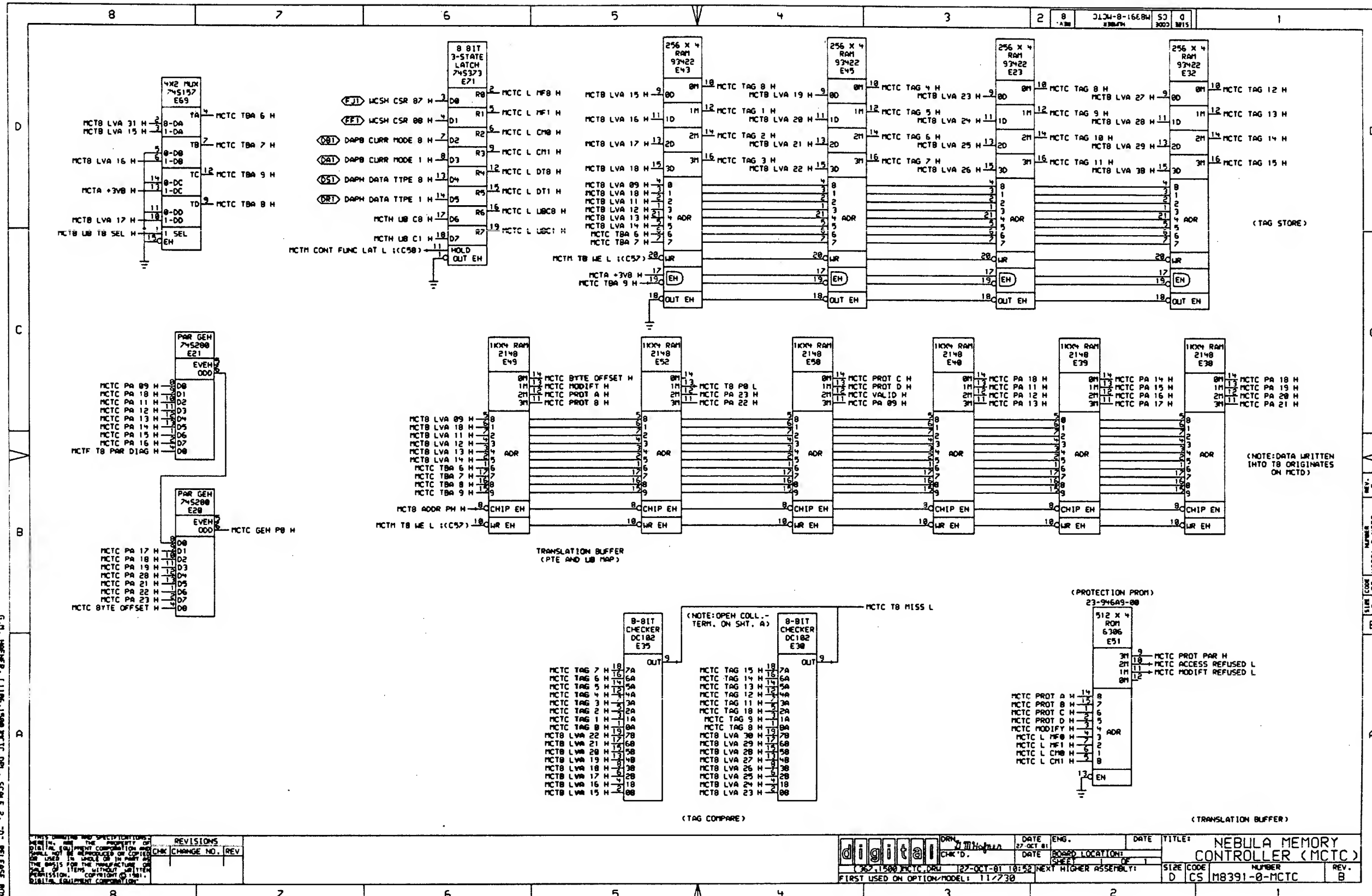
G.M. WARNER, 11186-1500 MCTA.DTL, SCALE 2, 10 RELEASE BOX
G.M. WARNER, MCTA.PLC.11186-1500 27-OCT-81 11:19

REVISIONS		
CHK	CHANGE NO.	REV

digital	DATE	ENG.	DATE	TITLE
	27-OCT-81			NEBULA MEMORY CONTROLLER (MCTA)
FIRST USED ON OPTION MODEL: 11/2730		BOARD LOCATION: GEEFY		REV. B



G.M. WARNER, (1106, 1988) MCTC, DPL, SCALE 2, "O" RELEASE BOX
G.M. WARNER, MCTC, PLO (1106, 1988) 27-OCT-81 11:48

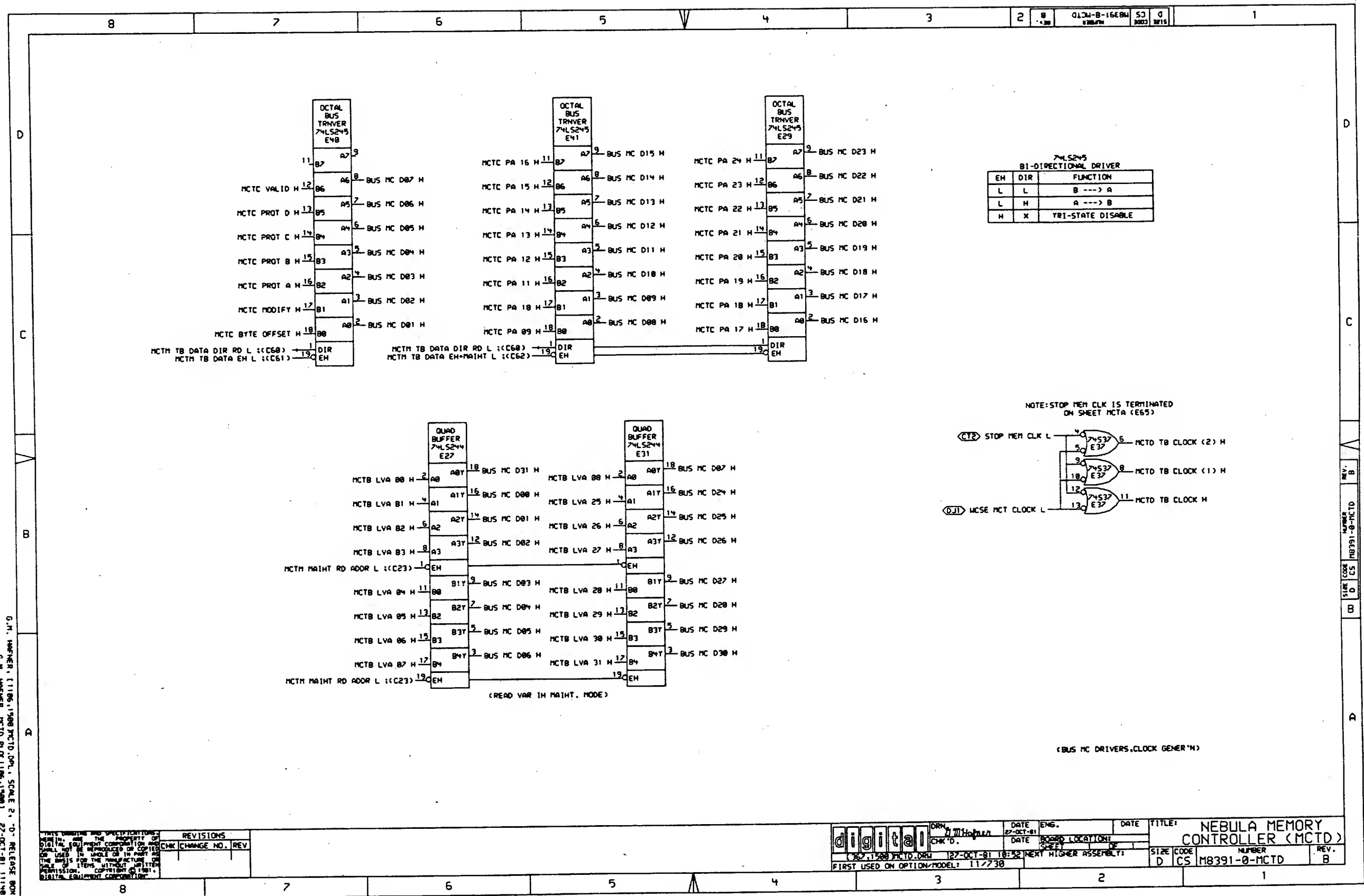


D
C
B
A

REV. B
NUMBER M8391-0-MCTC
CODE CS
SIZE D
ED

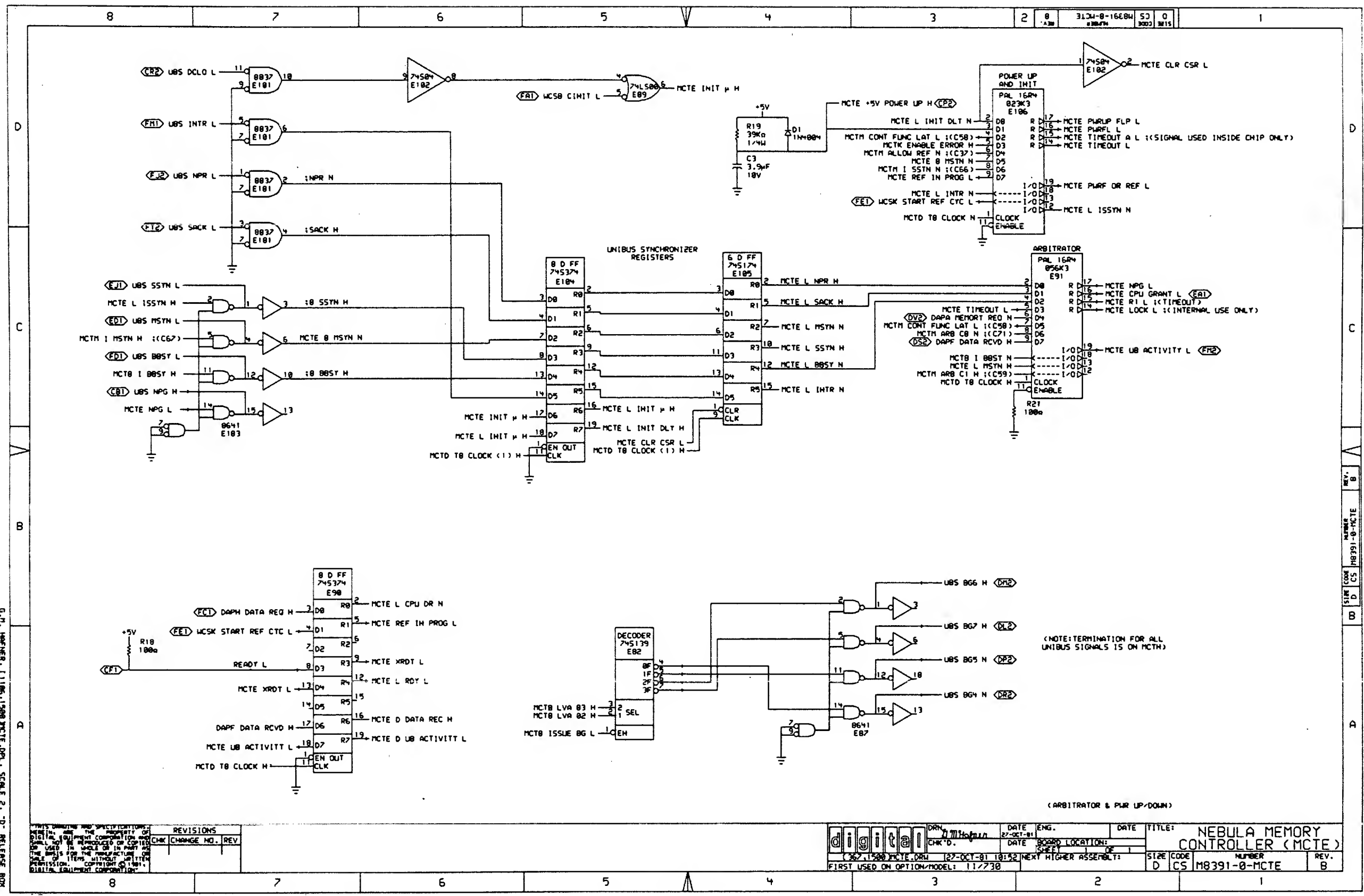
THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND ARE NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.		REVISIONS CHK CHANGE NO. REV		DATE ENG. 27 OCT 81		DATE 27 OCT 81		TITLES: NEBULA MEMORY CONTROLLER (MCTC)	
FIRST USED ON OPTION MODEL 11/730				NEXT HIGHER ASSEMBLY:				SIZE CODE NUMBER REV. D CS M8391-0-MCTC B	

G.M. WARNER, (1106, 1988) MCTD, P.O. BOX 111188, RELEASE BOX
G.M. WARNER, MCTD, P.O. BOX 111188, RELEASE BOX



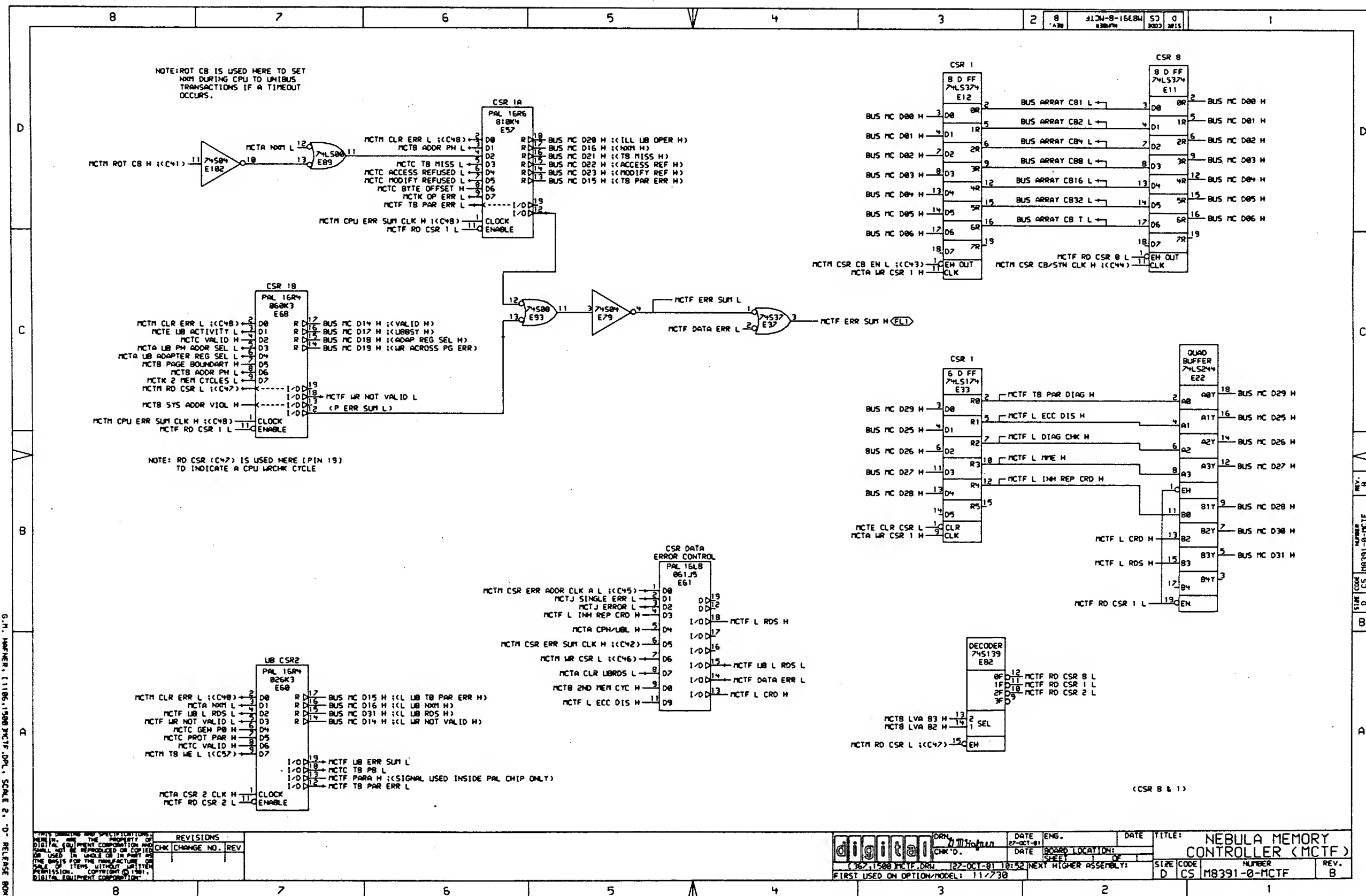
REVISIONS	
CHK	CHANGE NO. REV.

digital	DATE	ENG.	DATE	TITLE
	27-OCT-81	11/11/81	27-OCT-81	NEBULA MEMORY CONTROLLER (MCTD)
FIRST USED ON OPTION/MODEL: 11/7730		NEXT HIGHER ASSEMBLY:		SIZE CODE
				D CS
				NUMBER
				M8391-0-MCTD
				REV.
				B

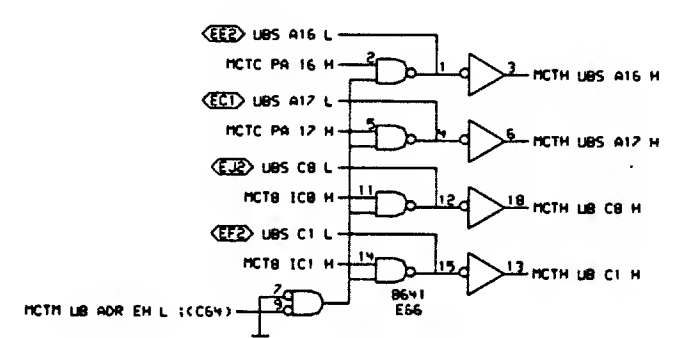
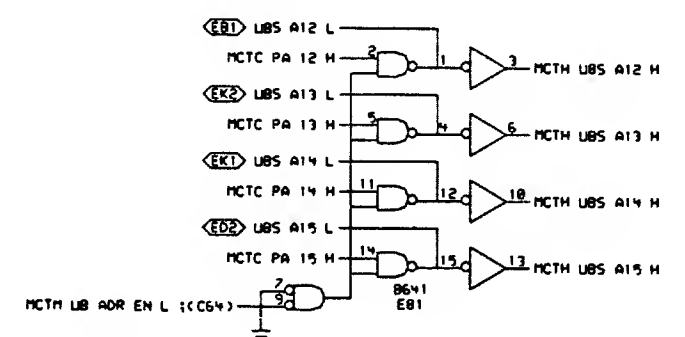
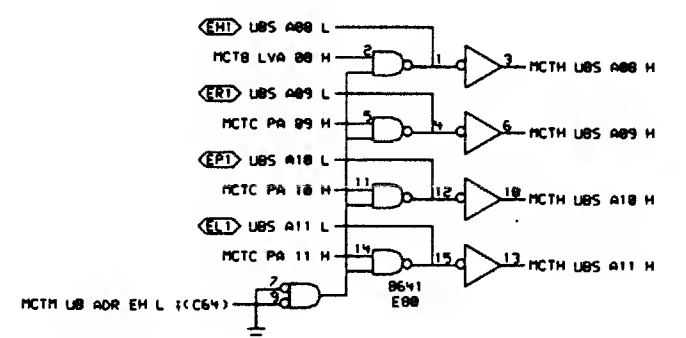
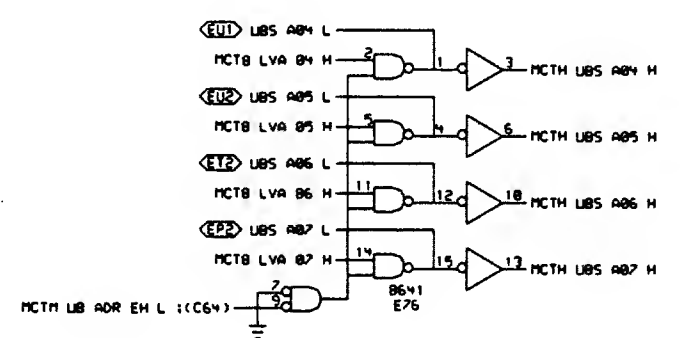
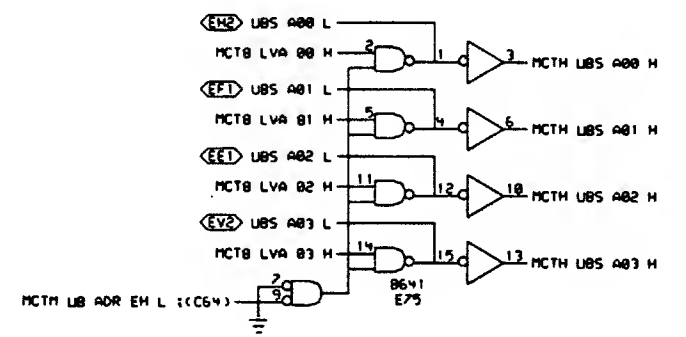
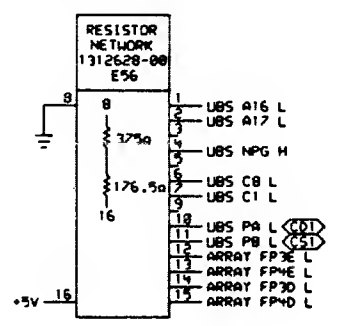
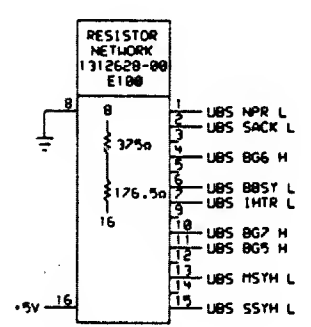
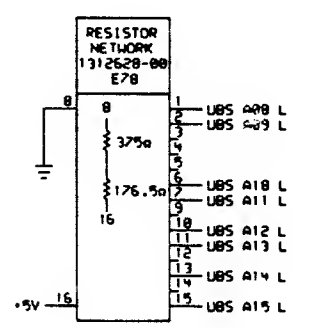
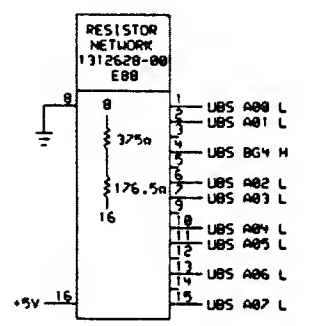


REVISIONS	
CHK	CHANGE NO. REV

digit@l	DATE 27-OCT-81	ENG. DATE	TITLE: NEBULA MEMORY CONTROLLER (MCTE)
3671500 MCTE.DRW	27-OCT-81 10:52	DATE	BOARD LOCATION: 1 OF 1
FIRST USED ON OPTION MODEL: 117730		DATE	DATE
SIZE CODE	NUMBER	REV.	
D CS	M8391-0-MCTE	B	



8 7 6 5 4 3 2 1

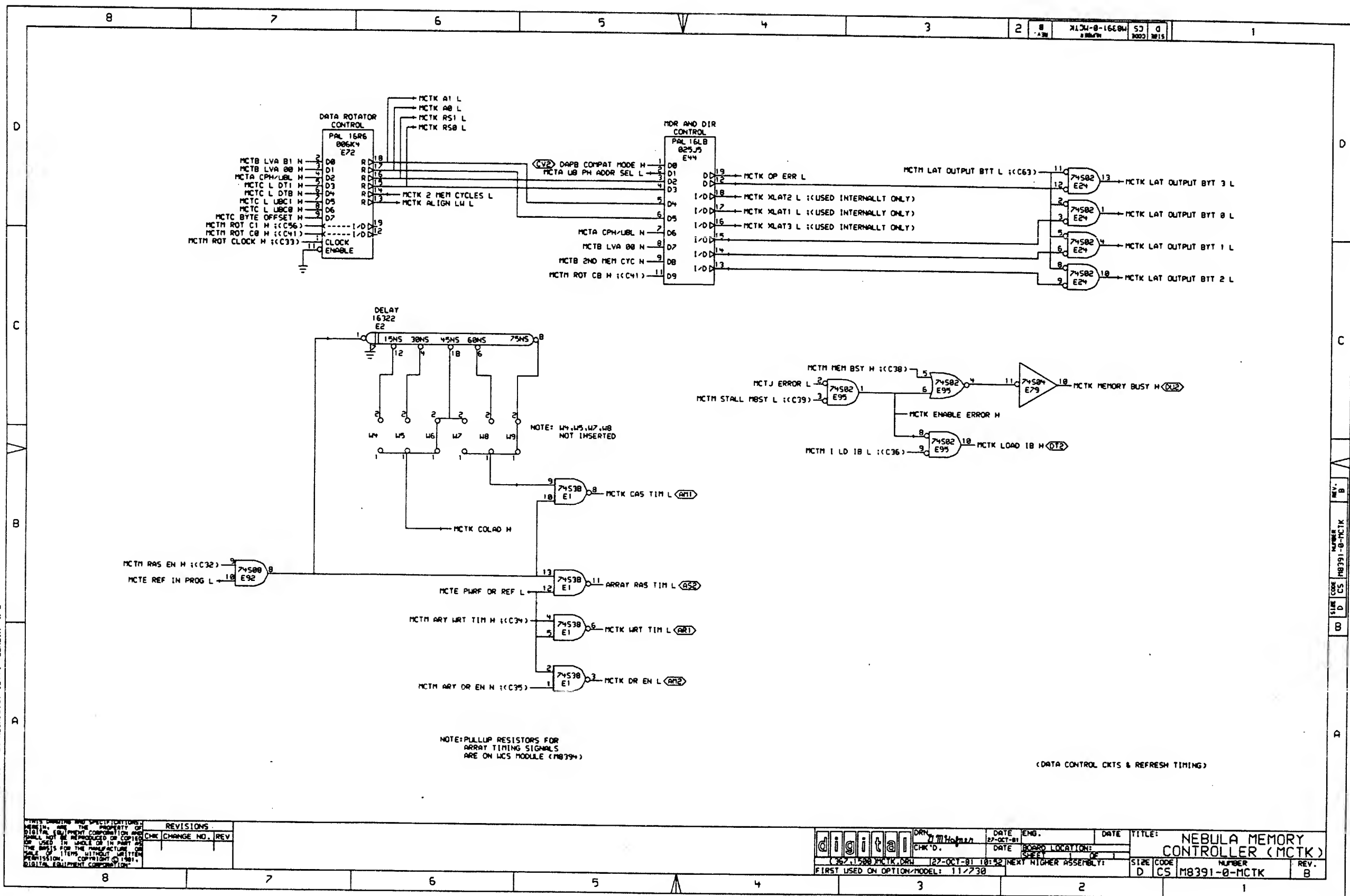


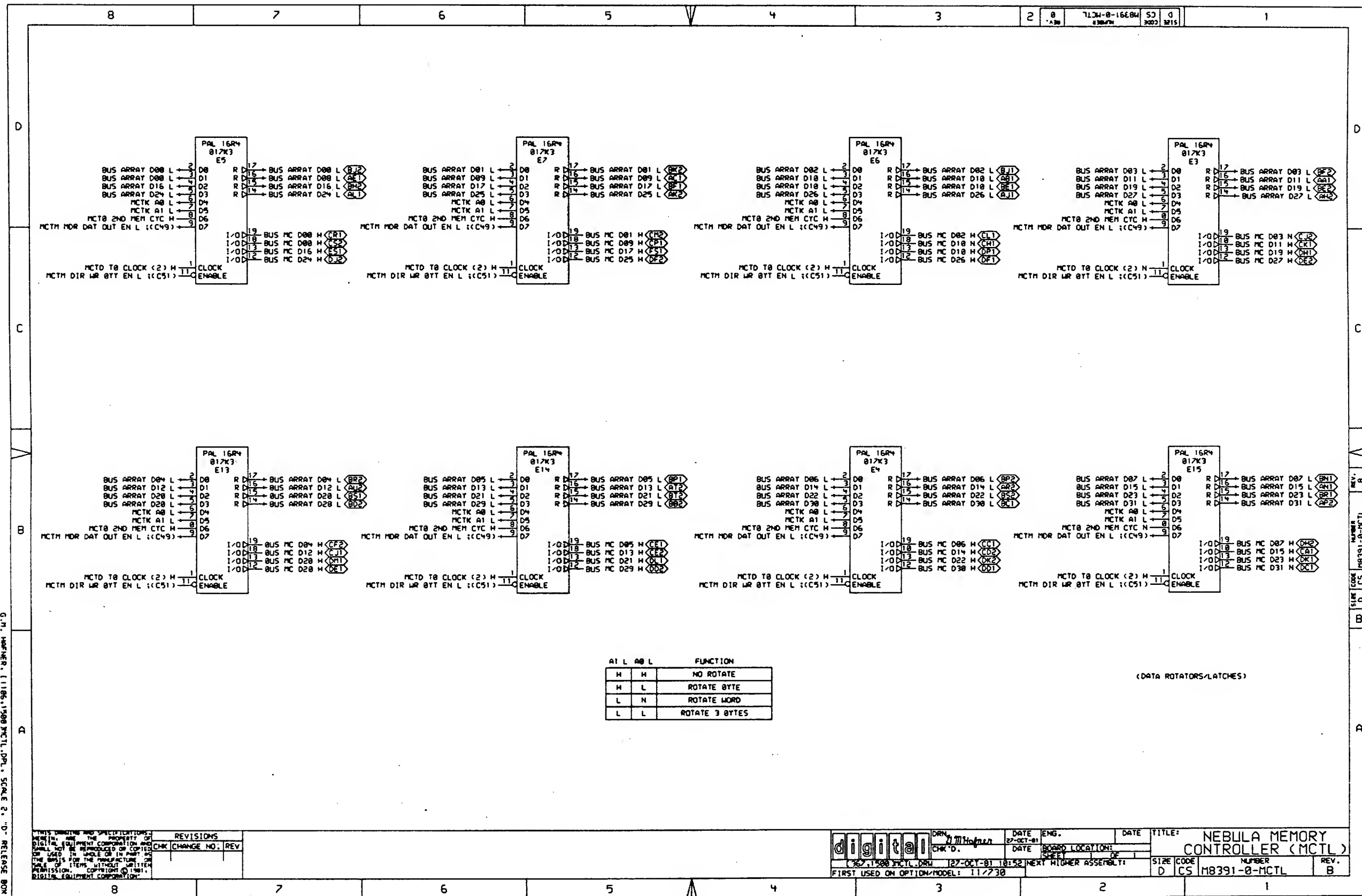
(UBS ADRES XCVRS & TERM.)
(DATA XCVRS AND LATCHES ON MCS)

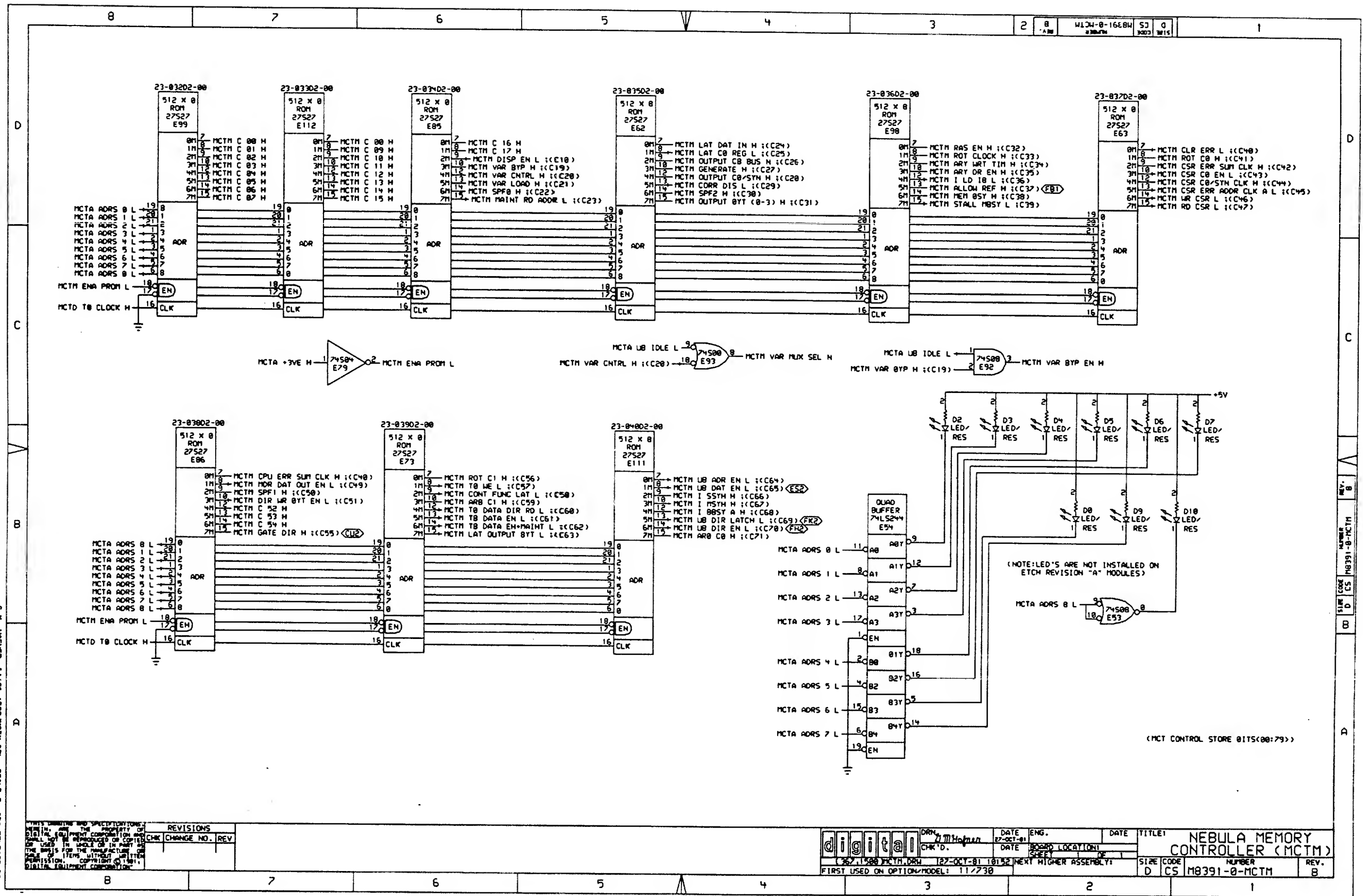
G.M. HOFFER, 11105-11900 MCTH.DRL, SCALE 2:1, RELEASE BOX
G.M. HOFFER, MCTH.PLC.1106.11900, 27-OCT-81 11101

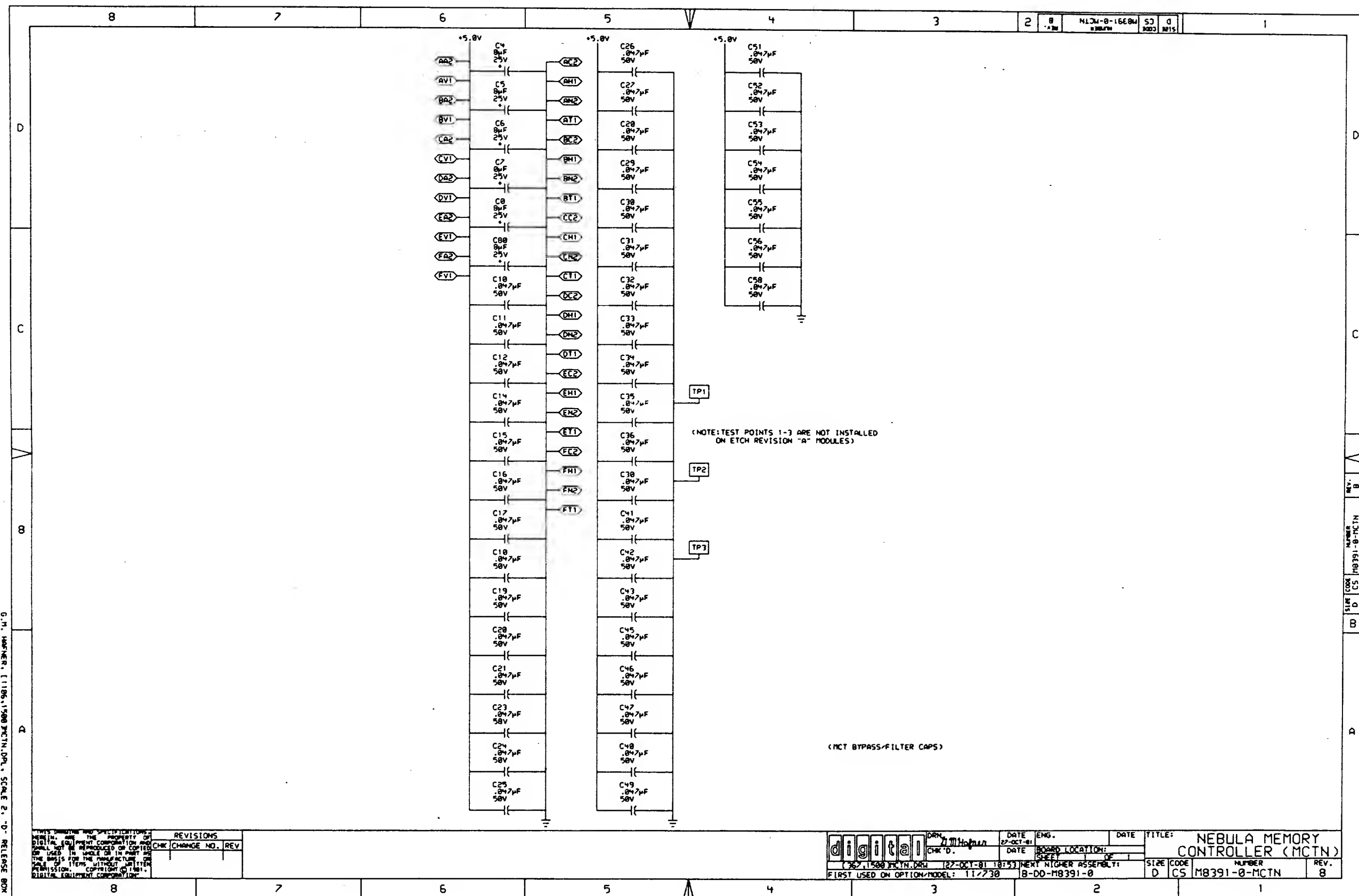
REVISIONS		
CHK	CHANGE NO.	REV

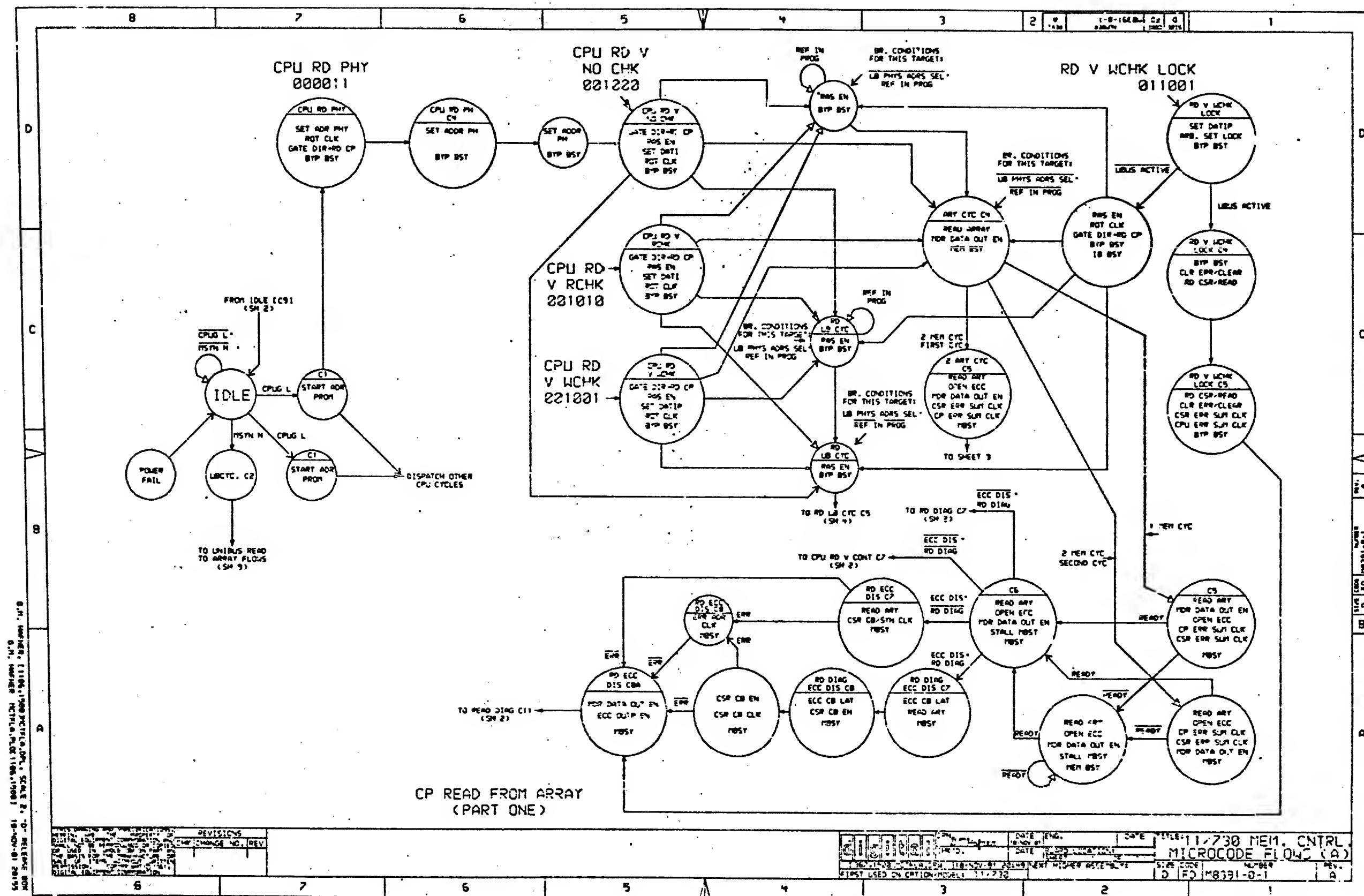
digitai	DATE	ENG.	DATE	TITLE
	27-OCT-81			NEBULA MEMORY CONTROLLER (MCTH)
1312628-00 MCTH.DRL	127-OCT-81 10152	NEXT HIGHER ASSEMBLY	SIZE	CODE
FIRST USED ON OPTION/MODEL: 11/230			D	CS
			NUMBER	REV.
			M8391-0-MCTH	B

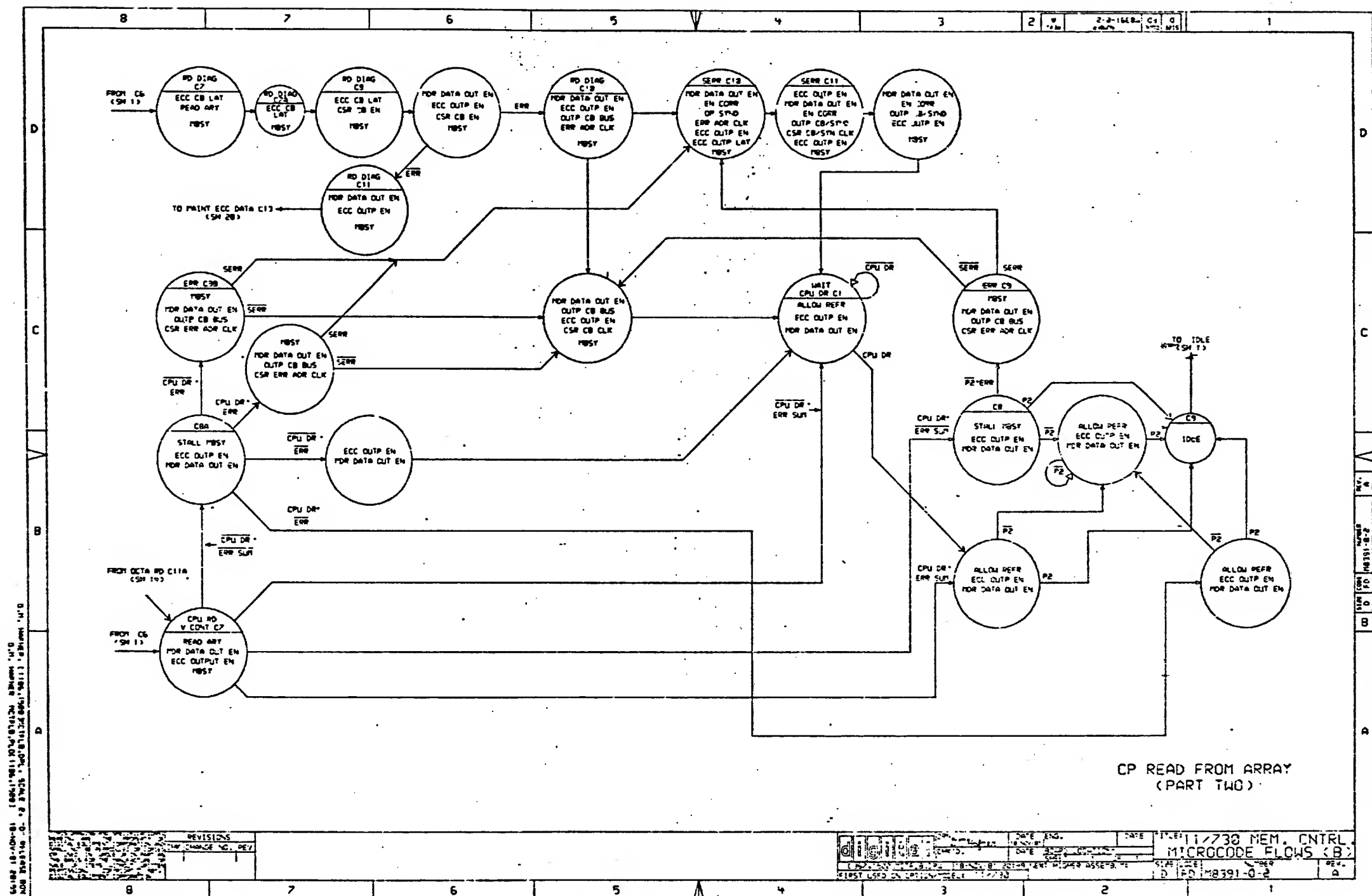


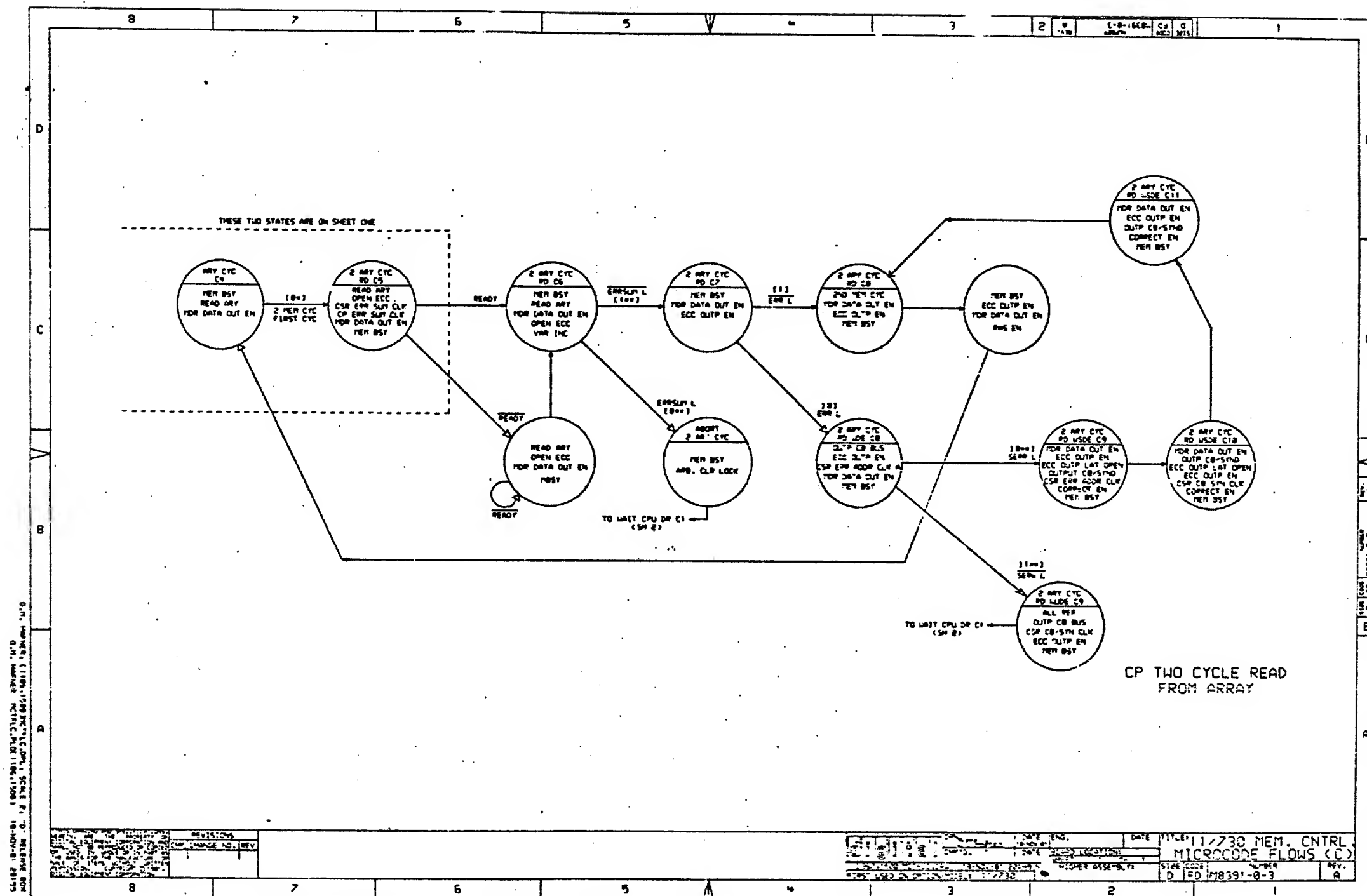


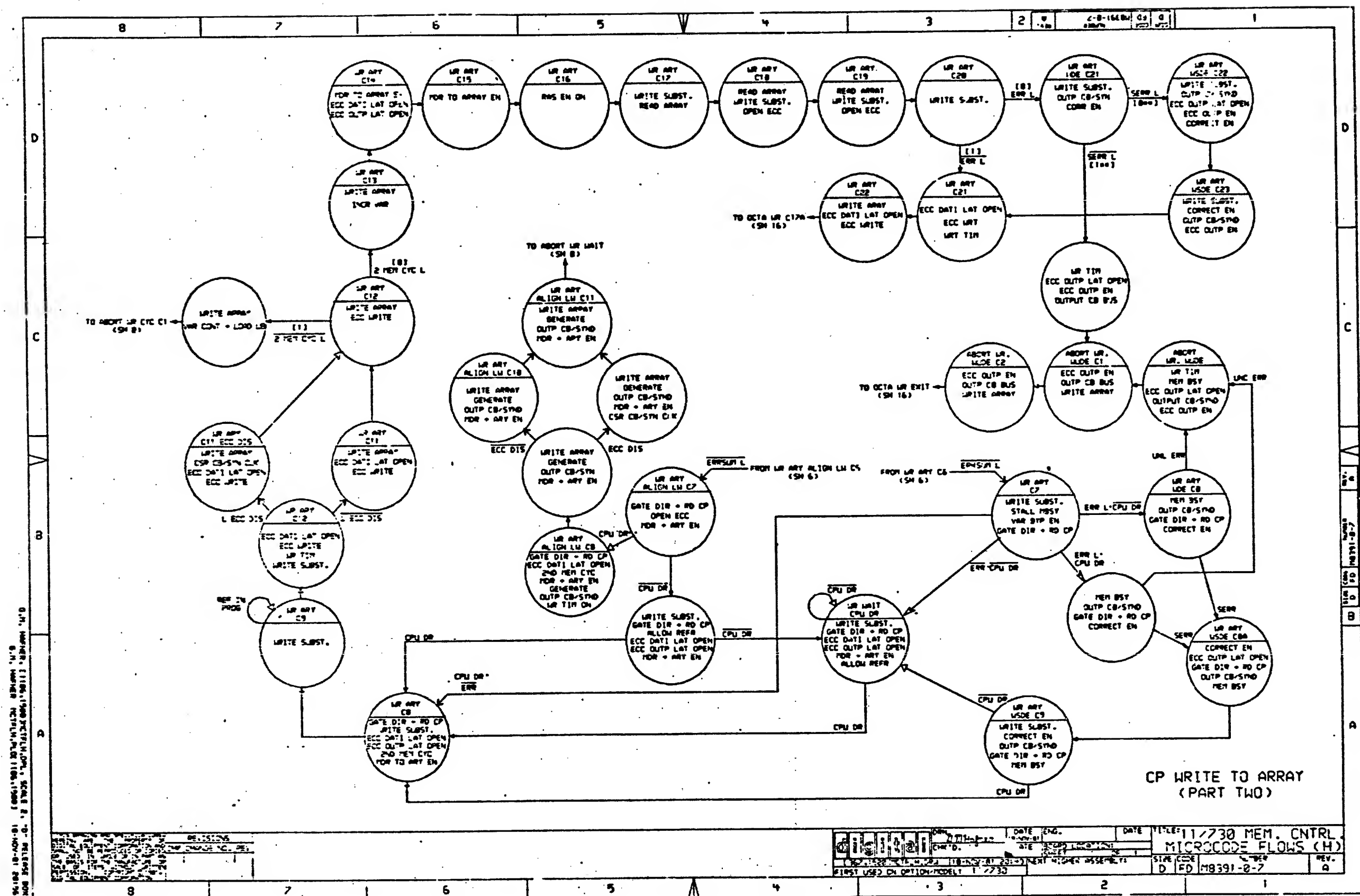


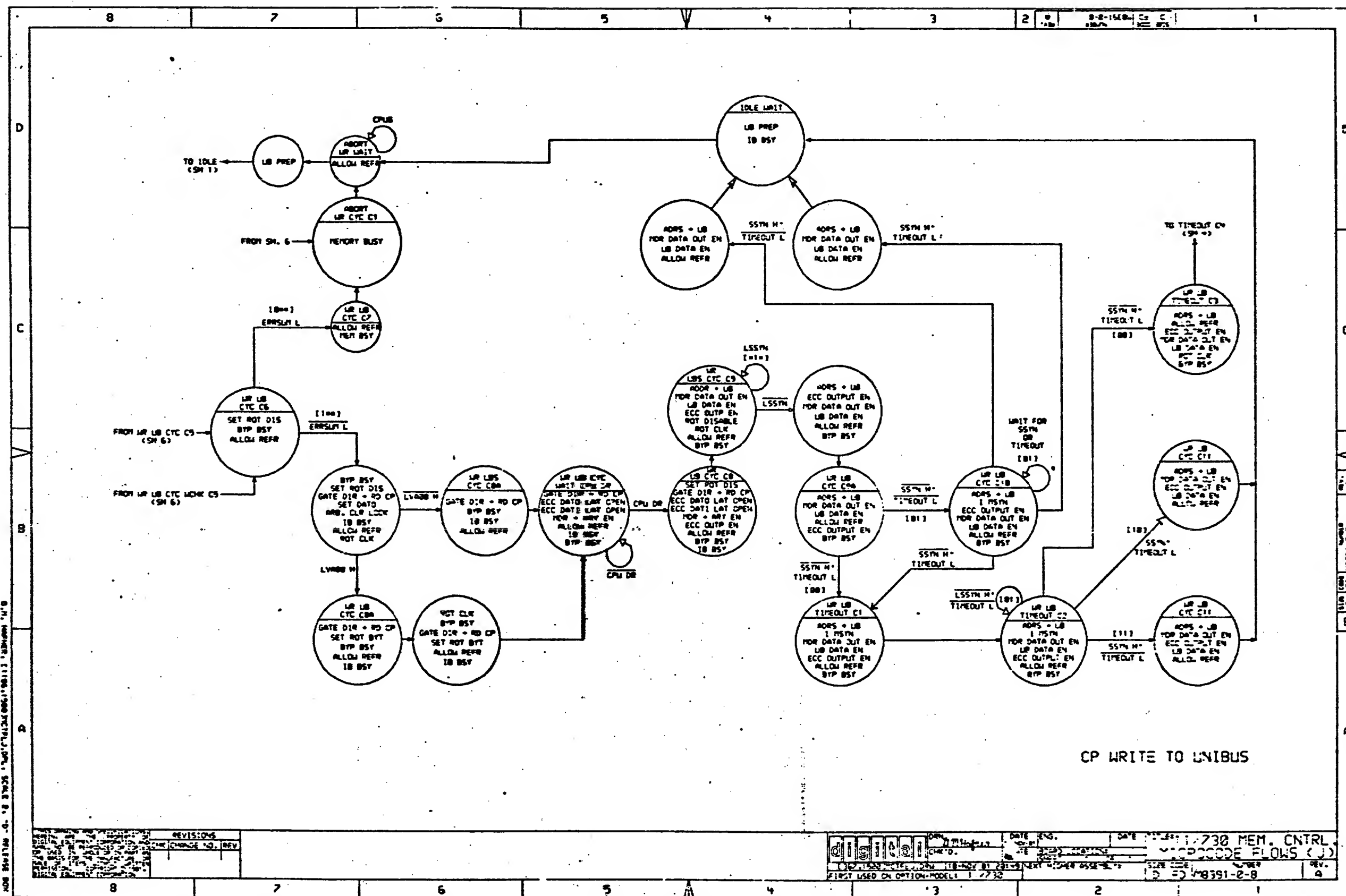


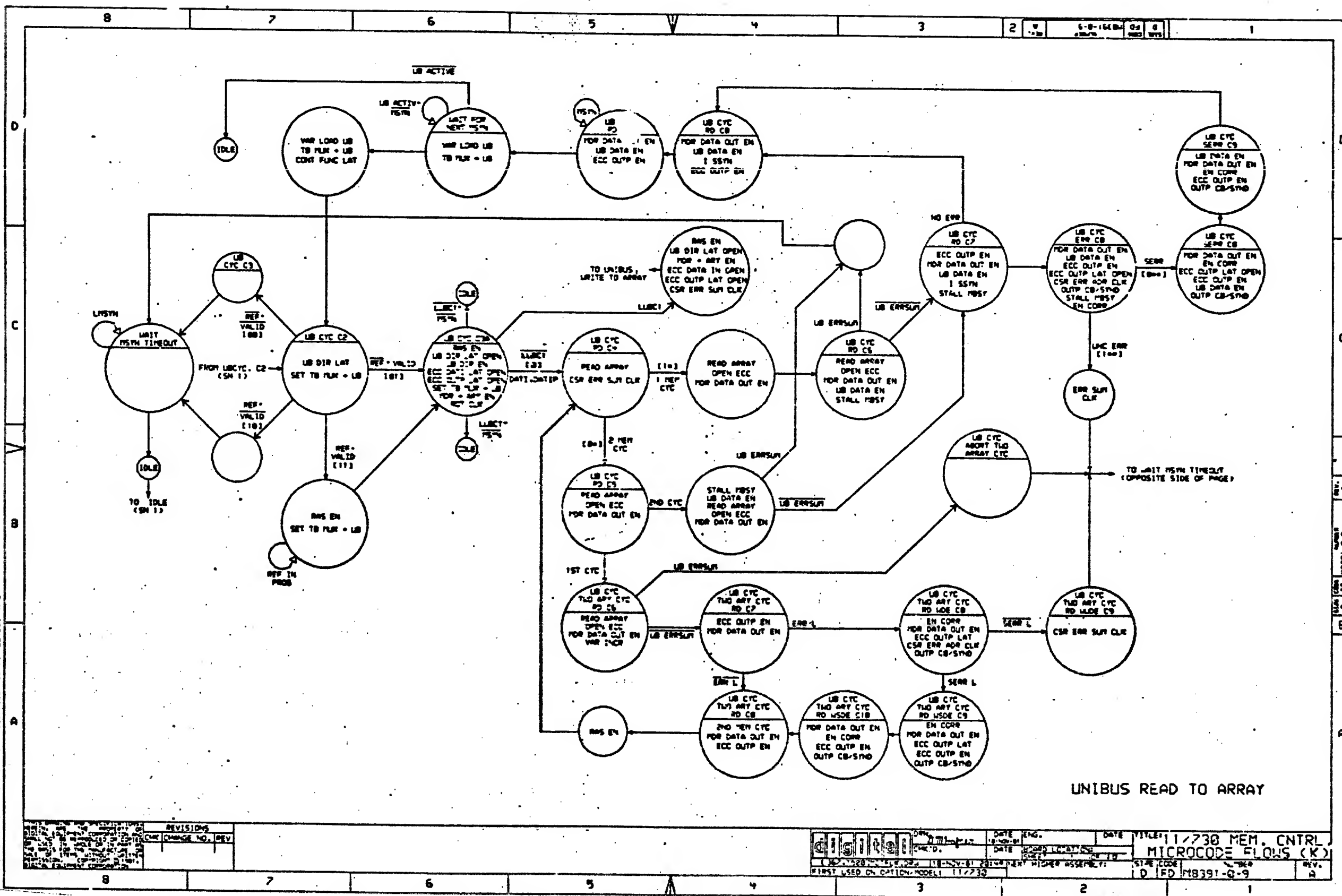


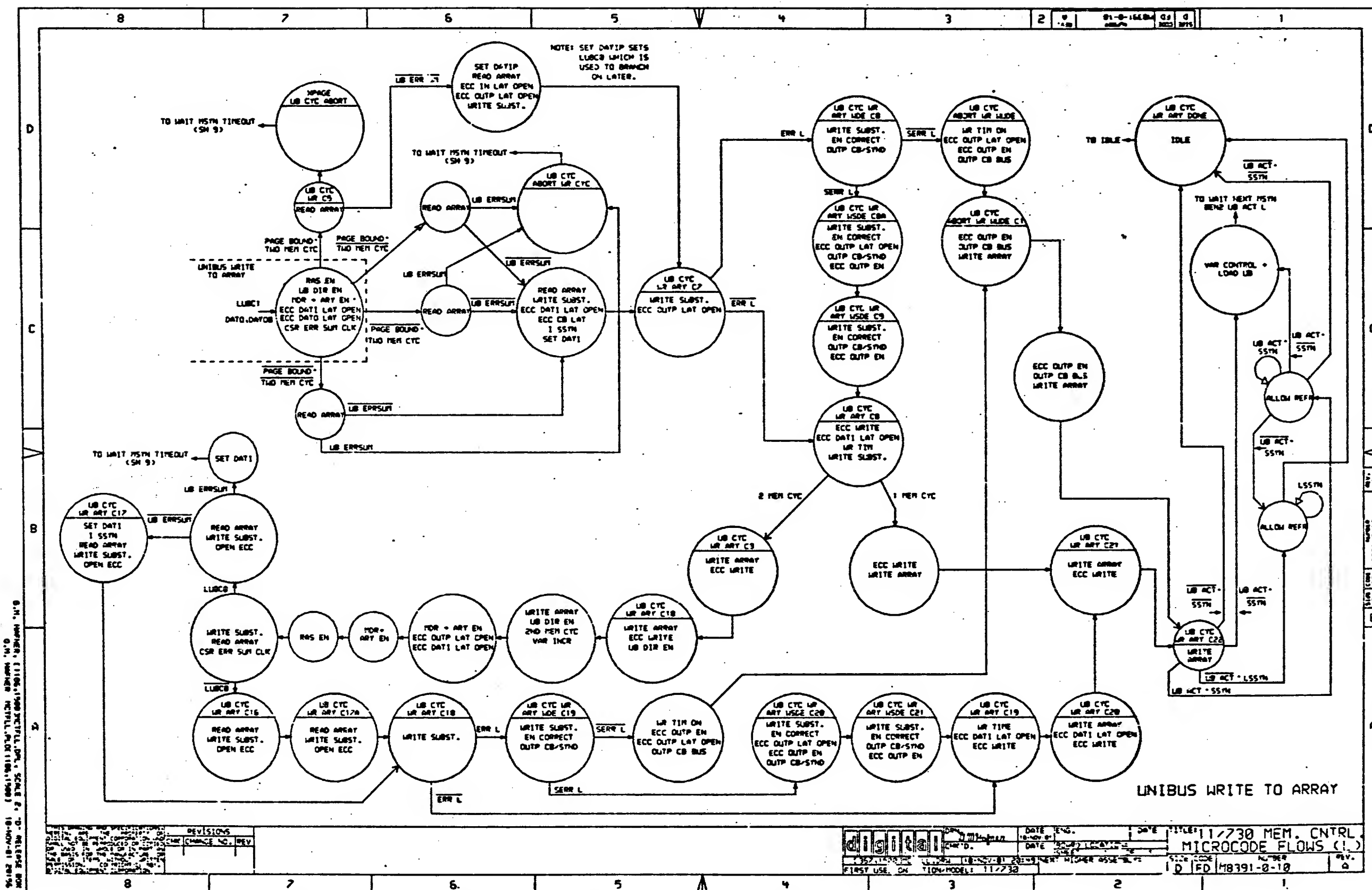


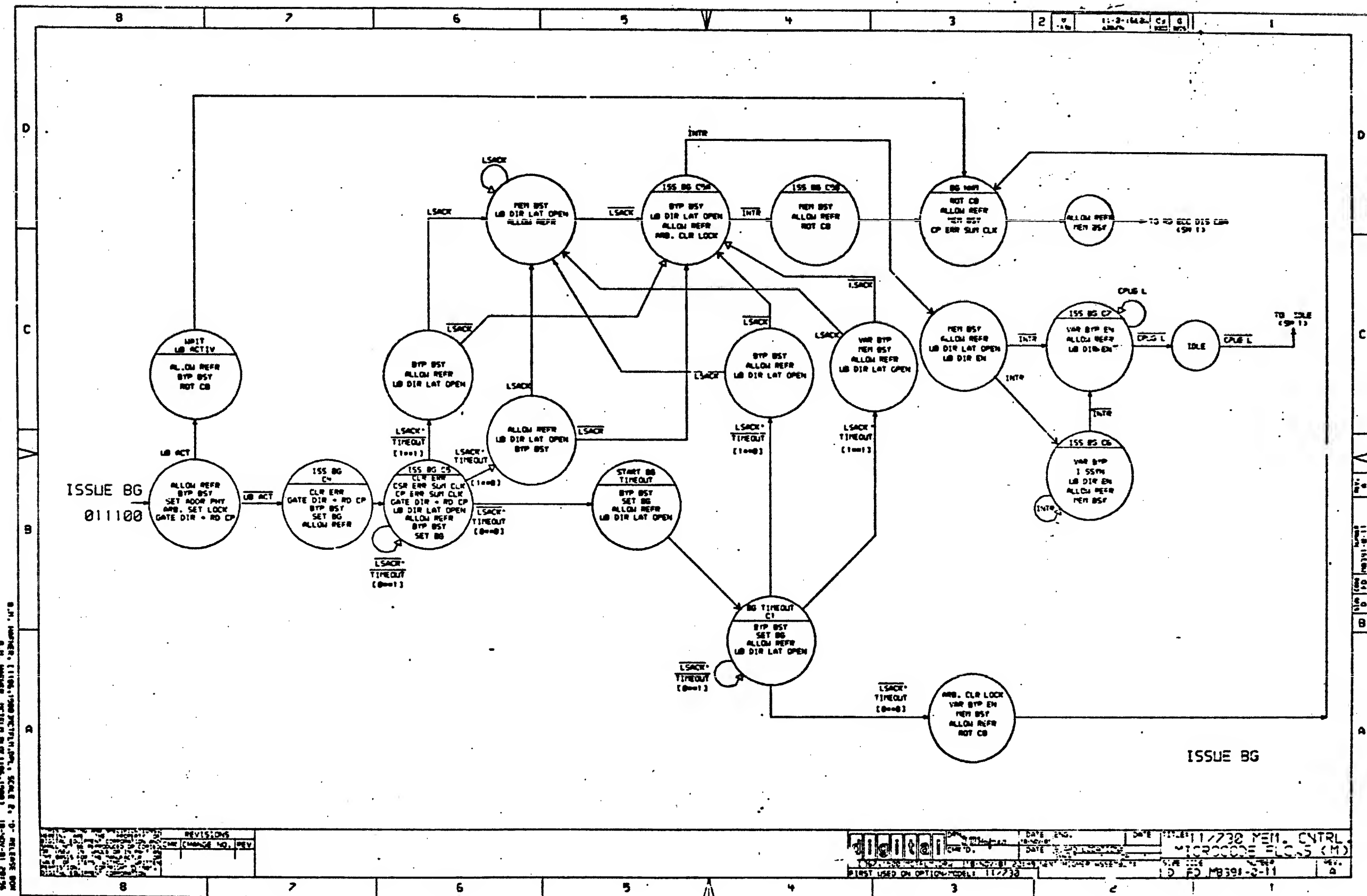


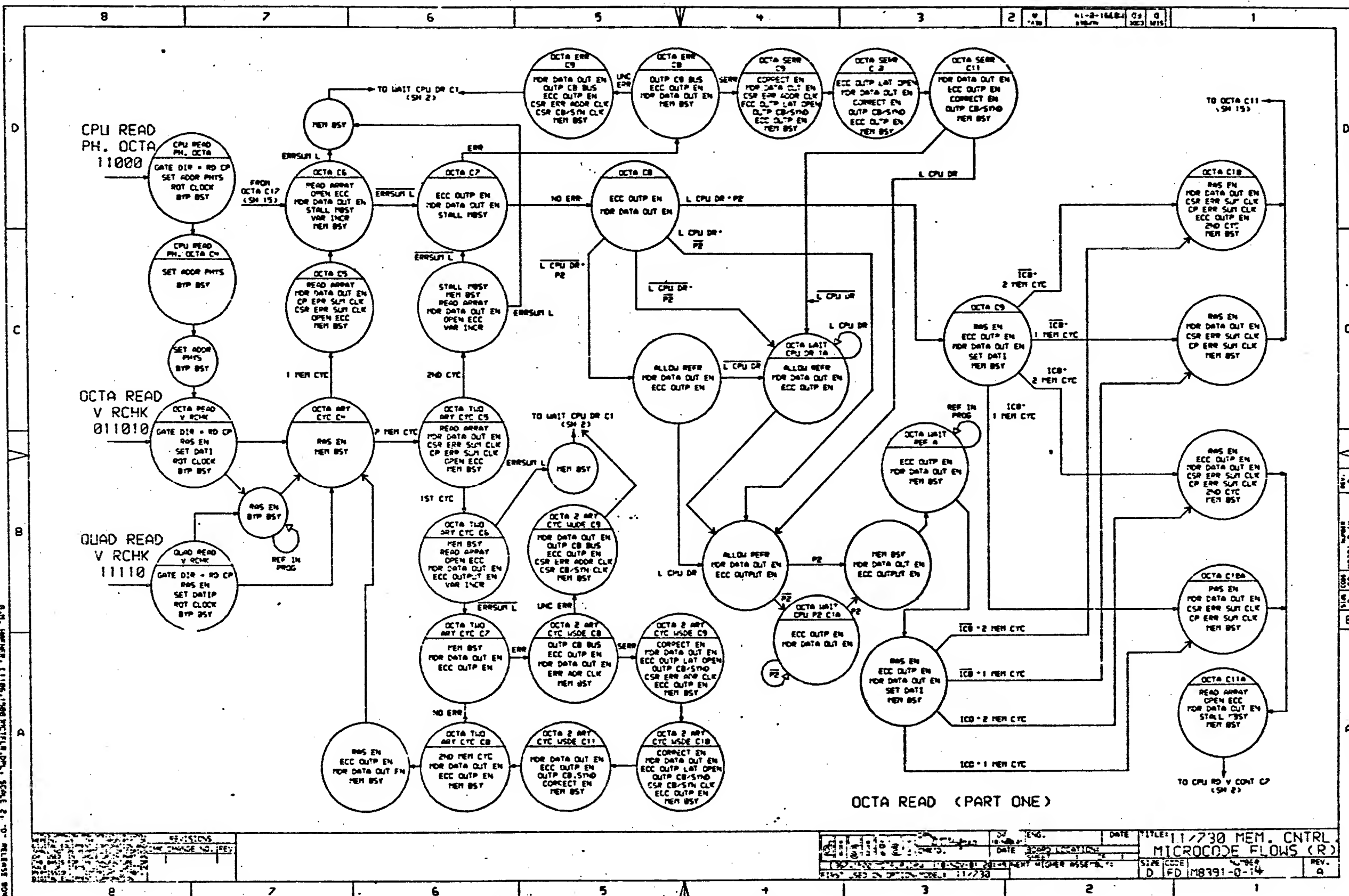








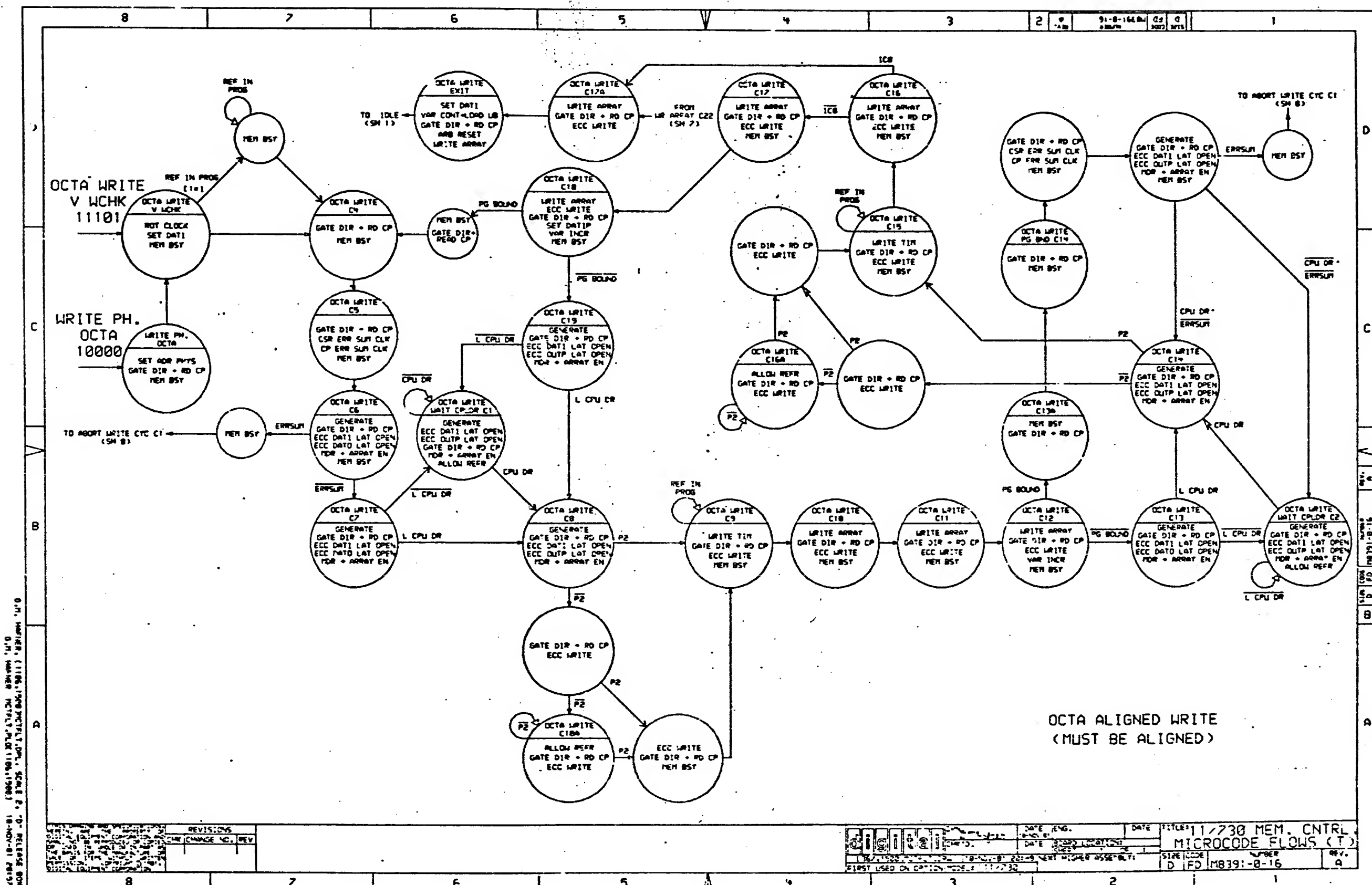




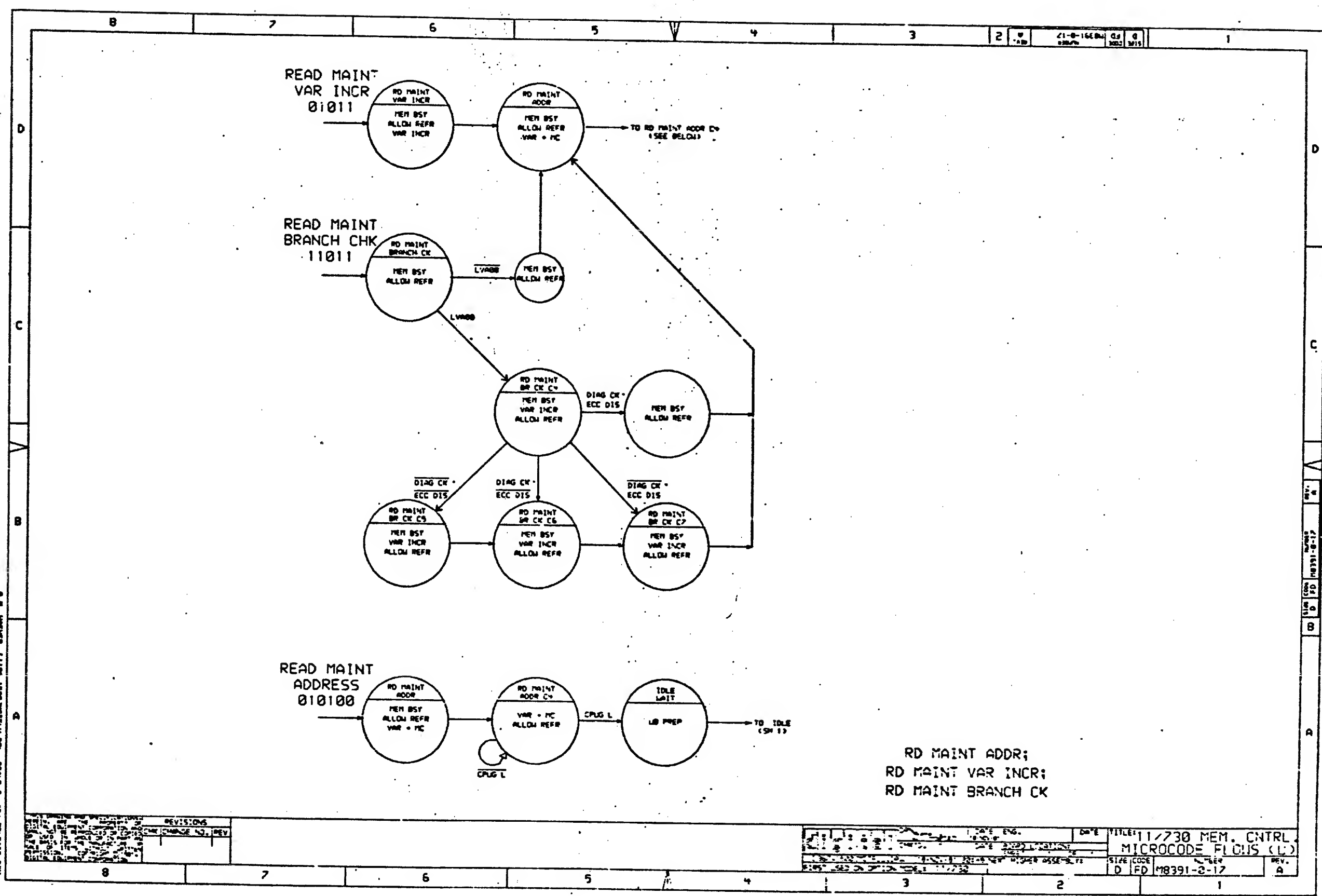
0.1. 11/730 MEM. CNTRL. SCALE 2. 0. RELEASE 004
0.1. 11/730 MEM. CNTRL. SCALE 2. 0. RELEASE 004

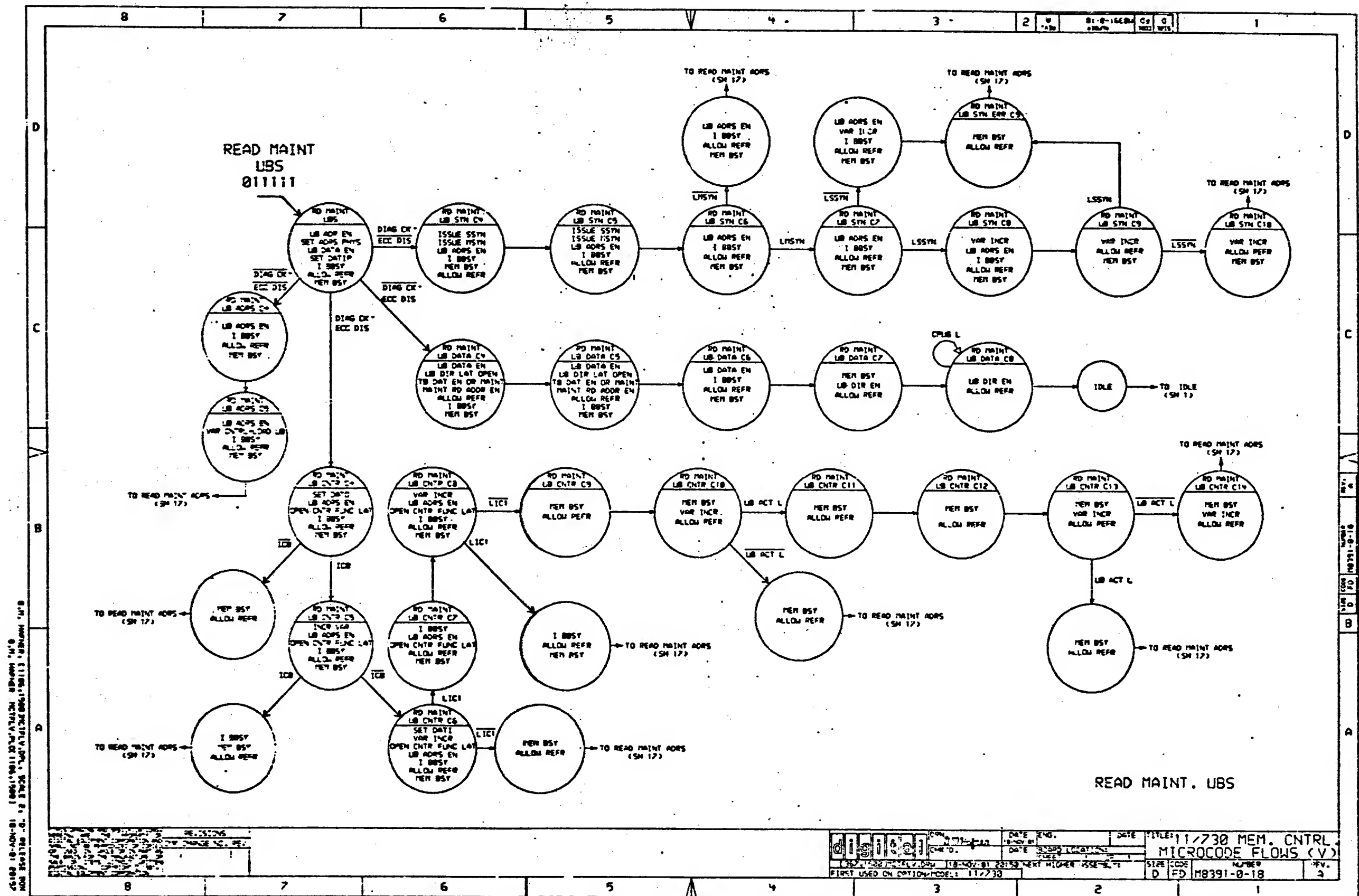
REV. A	DATE 11/73	FILE 11/730 MEM. CNTRL.	DATE 11/73	FILE 11/730 MEM. CNTRL.
REV. A	DATE 11/73	FILE 11/730 MEM. CNTRL.	DATE 11/73	FILE 11/730 MEM. CNTRL.
REV. A	DATE 11/73	FILE 11/730 MEM. CNTRL.	DATE 11/73	FILE 11/730 MEM. CNTRL.
REV. A	DATE 11/73	FILE 11/730 MEM. CNTRL.	DATE 11/73	FILE 11/730 MEM. CNTRL.



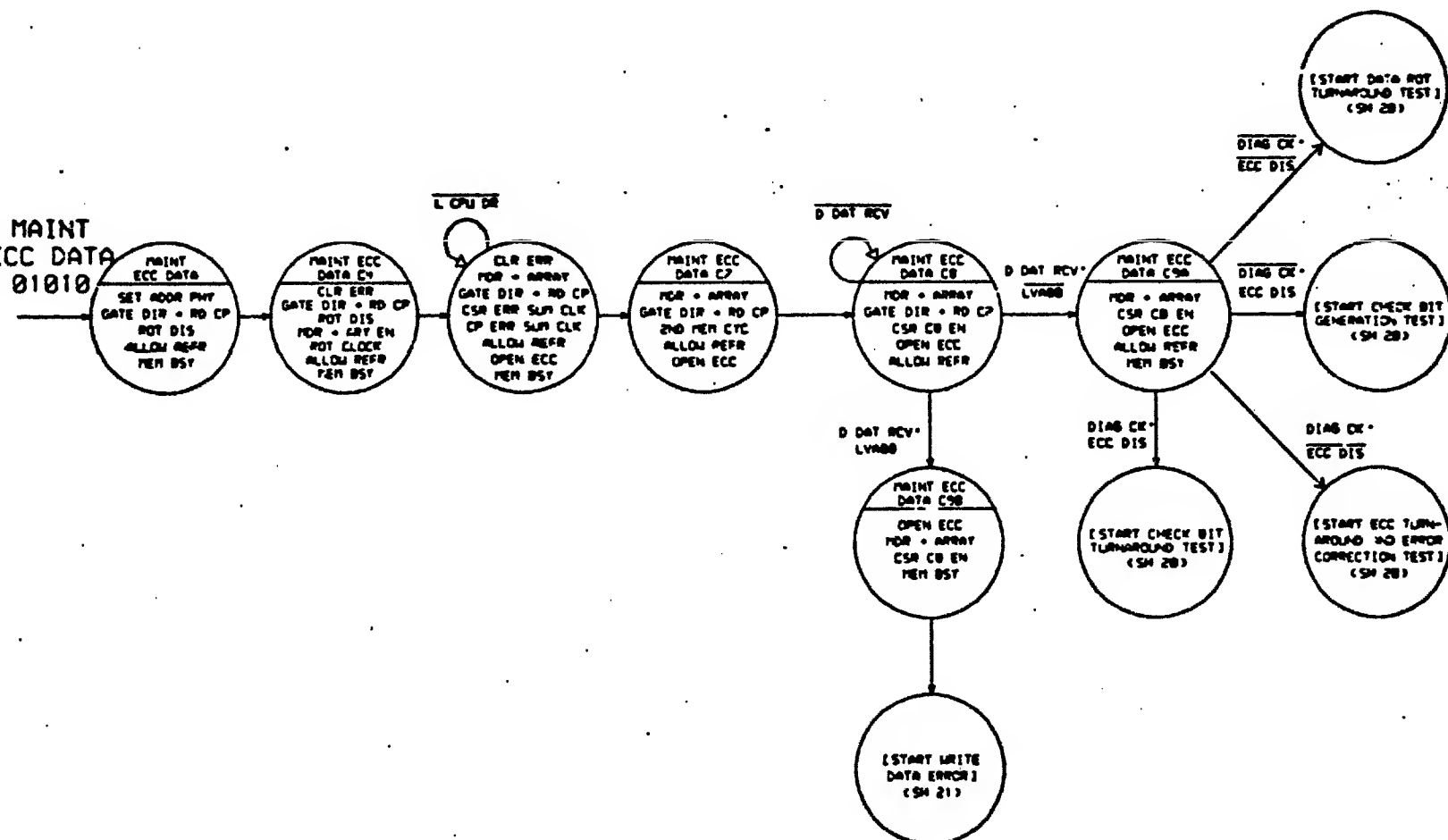


0.1. WORKER, 11/10/1980 PCT/LL/001, SCALE 8, 0.0. RELEASED BY
0.1. WORKER PCT/LL/001, 11/10/1980 10:40:01 2015





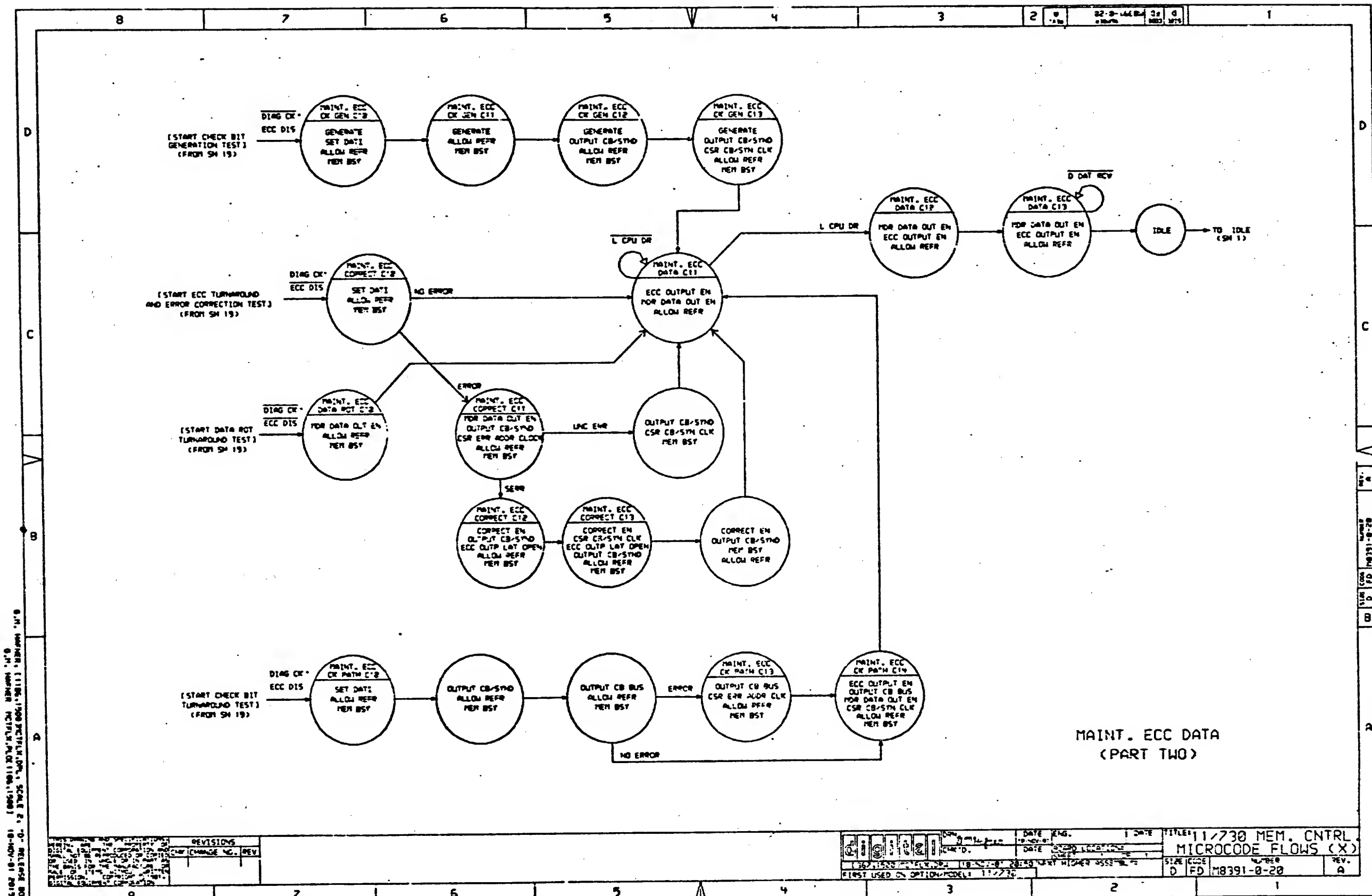
MAINT
ECC DATA
01010



MAINT. ECC DATA
(PART ONE)

REV	DATE	BY	CHKD	APPD
1	11/2/73	W		

11/2/73 MEM. CNTRL.	11/2/73	11/2/73	11/2/73	11/2/73
MICROCODE FLOWS (W)	11/2/73	11/2/73	11/2/73	11/2/73
11/2/73	11/2/73	11/2/73	11/2/73	11/2/73
11/2/73	11/2/73	11/2/73	11/2/73	11/2/73



S.M. NUMBER: 11196-11008 PCT/PLM/PLM, SCALE 2, D- RELEASE BOX
 S.M. NUMBER: PCT/PLM/PLM, 11008 18-NOV-81 20137

REV.	CHG.	NO.	REV.
1		1	

DATE	ENG.	DATE	ENG.	DATE	ENG.
18-NOV-81	20137	18-NOV-81	20137	18-NOV-81	20137
FIRST USED ON OPTION MODEL: 11/2730					

MAINT. ECC DATA
(PART TWO)

TITLE: 11/2730 MEM. CNTRL.	
MICROCODE FLOWS (X)	
STATE CODE	NUMBER
D	FD
M8391-0-20	
REV.	A

PART NUMBER: 23-825J5-00
DEVICE TYPE: PAL16L8
SCHEMATIC SHEET #1D-CS-M8391-8-MCTK
LOCATION/DESCRIPTION: E44/ MCTK MDR AND DIR CONTROL
ASSIGNED PIN NUMBER:

1= COMP.MODE	8= LVA00	15= OPEN.LAT0
2= X.PHYS.ADDR.SEL	9= L40	16= X.LAT3
3= RS1	10= GND	17= X.LAT1
4= RS0	11= LR.SUB	18= X.LAT2
5= A1	12= OPEN.LAT3	19= OP.ERR
6= A0	13= OPEN.LAT2	20= VCC
7= CPU.CYCLE	14= OPEN.LAT1	

EQUATIONS:

IF[VCC] OPEN.LAT3:=X.LAT3
+CPU.CYCLE=X.LAT3
+CPU.CYCLE=L40=LR.SUB=RS1=RS0=A1=A0
+CPU.CYCLE=L40=LR.SUB=RS1=RS0=A1
+CPU.CYCLE=L40=LR.SUB=RS1=RS0=A1=A0
+CPU.CYCLE=L40=LR.SUB=RS1=RS0

IF[VCC] X.LAT3:=L40=LR.SUB=A1
+L40=LR.SUB=A1=A0=RS0=LVA00
+L40=LR.SUB=A0=RS0=LVA00
+L40=LR.SUB

IF[VCC] X.LAT2:=CPU.CYCLE=L40=LR.SUB=A1=A0
+CPU.CYCLE=L40=LR.SUB=A1=A0
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS0=LVA00
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS0=LVA00
+CPU.CYCLE=L40=LR.SUB
+LR.SUB

IF[VCC] OPEN.LAT2:=X.LAT2
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0

IF[VCC] X.LAT1:=L40=LR.SUB=A1
+L40=LR.SUB=A1=A0=RS0=LVA00
+L40=LR.SUB=A1=A0=RS0=LVA00
+L40=LR.SUB

IF[VCC] OPEN.LAT1:=LR.SUB
+CPU.CYCLE=X.LAT1
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0
+CPU.CYCLE=L40=LR.SUB=A1=RS1=RS0
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0
+CPU.CYCLE=L40=LR.SUB=A1=A0=RS1=RS0

IF[VCC] OPEN.LAT0:=LR.SUB
+CPU.CYCLE=L40=LR.SUB=A1
+CPU.CYCLE=L40=LR.SUB=A1=A0
+CPU.CYCLE=L40=LR.SUB=LVA00=RS0
+CPU.CYCLE=L40=LR.SUB=A1=A0

IF[VCC] OP.ERR:=COMP.MODE=RS0=A0
+X.PHYS.ADDR.SEL=RS1
+X.PHYS.ADDR.SEL=RS0=A0

PART NUMBER: 23-842J5-00
DEVICE TYPE: PAL16L8
SCHEMATIC SHEET #1D-CS-M8391-8-MCTA
LOCATION/DESCRIPTION: E46/ PHYSICAL ADDRESS DECODER A
ASSIGNED PIN NUMBER:

1= FP3A	8= PA20	15= PA22
2= FP4A	9= PA21	16= SELC
3= FP3B	10= GND	17= SEL0
4= FP4B	11= INH.UCS.SEL	18= SELA
5= PA23	12= P0001	19= UB.PH.ADDR.SEL
6= PA18	13= FP3C	20= VCC
7= PA19	14= FP4C	

EQUATIONS:

IF[VCC] P0001:=SEL0=SELC=PA23
+SEL0=SELC=PA22
+SEL0=SELC=PA21
+SEL0=SELC=PA20
+SEL0=SELC=PA19
+SEL0=SELC=PA18

IF[VCC] UB.PH.ADDR.SEL:=PA23=PA22=PA21=PA20=PA19=PA18

IF[VCC] SELC:=FP4C=PA23=PA22=PA21=PA20=PA19=PA18
+FP4C=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.SEL
+FP4C=FP3C=PA23=PA22=PA21=PA20=PA19=PA18
+FP4C=FP3C=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.S
+FP4C=FP3C=PA23=PA22=PA21=PA20=PA19=PA18
+FP4C=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.SEL
+FP4C=FP3C=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.SE

IF[VCC] SEL0:=FP4B=PA23=PA22=PA21=PA20=PA19=PA18
+FP4B=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.SEL
+FP4B=FP3B=PA23=PA22=PA21=PA20=PA19=PA18
+FP4B=FP3B=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.
+FP4B=FP3B=PA23=PA22=PA21=PA20=PA19=PA18
+FP4B=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.SEL
+FP4B=FP3B=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.SE

IF[VCC] SELA:=FP4A=PA23=PA22=PA21=PA20=PA19=PA18
+FP4A=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.SEL
+FP4A=FP3A=PA23=PA22=PA21=PA20=PA19=PA18
+FP4A=FP3A=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.
+FP4A=FP3A=PA23=PA22=PA21=PA20=PA19=PA18
+FP4A=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.SEL
+FP4A=FP3A=PA23=PA22=PA21=PA20=PA19=PA18=INH.UCS.S

PART NUMBER: 23-843J5-00
DEVICE TYPE: PAL16L8
SCHEMATIC SHEET #1D-CS-M8391-8-MCTA
LOCATION/DESCRIPTION: E55/ PHYSICAL ADDRESS DECODER 0
ASSIGNED PIN NUMBER:

1= FP3D	8= PA20	15= PA22
2= FP4D	9= PA21	16= UB.ADDR.REG.SEL
3= FP3E	10= GND	17= SELE
4= FP4E	11= INH.UCS.SEL	18= SELD
5= PA23	12= P0001	19= SEL.UCS
6= PA18	13= P0001	20= VCC
7= PA19	14= 16K.RAM	

EQUATIONS:

IF[VCC] P0001:=P0001=UB.ADDR.REG.SEL=SELD=SELE=16K.RAM
+P0001=UB.ADDR.REG.SEL=SELD=SELE=PA23
+P0001=UB.ADDR.REG.SEL=SELD=SELE=PA22
+P0001=UB.ADDR.REG.SEL=SELD=SELE=PA21
+P0001=UB.ADDR.REG.SEL=SELD=SELE=PA20
+P0001=UB.ADDR.REG.SEL=SELD=SELE=PA19
+P0001=UB.ADDR.REG.SEL=SELD=SELE=PA18

IF[VCC] UB.ADDR.REG.SEL:=PA23=PA22=PA21=PA20=PA19=PA18
+PA23=PA22=PA21=PA20=PA19=PA18
+PA23=PA22=PA21=PA20=PA19=PA18

IF[VCC] SEL.UCS:=16K.RAM=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL

IF[VCC] SELE:=16K.RAM=FP4E=PA23=PA22=PA21=PA20=PA19=PA18
+16K.RAM=FP4E=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL
+16K.RAM=FP4E=FP3E=PA23=PA22=PA21=PA20=PA19=PA18
+16K.RAM=FP4E=FP3E=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL
+16K.RAM=FP4E=FP3E=PA23=PA22=PA21=PA20=PA19=PA18
+16K.RAM=FP4E=FP3E=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL
+16K.RAM=FP4E=FP3E=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL

IF[VCC] SELD:=16K.RAM=FP4D=PA23=PA22=PA21=PA20=PA19=PA18
+16K.RAM=FP4D=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL
+16K.RAM=FP4D=FP3D=PA23=PA22=PA21=PA20=PA19=PA18
+16K.RAM=FP4D=FP3D=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL
+16K.RAM=FP4D=FP3D=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL
+16K.RAM=FP4D=FP3D=PA23=PA22=PA21=PA20=PA19
+PA18=INH.UCS.SEL

23-825J5-00
23-842J5-00
23-843J5-00

THIS DRAWING AND SPECIFICATIONS
ARE THE PROPERTY OF
DIGITAL EQUIPMENT CORPORATION
AND ARE NOT TO BE REPRODUCED OR
COPIED IN ANY MANNER OR FOR
ANY PURPOSE WITHOUT THE WRITTEN
PERMISSION OF DIGITAL EQUIPMENT
CORPORATION.

REVISIONS
CHK CHANGE NO. REV

digital

DATE 27-OCT-81
CHK'D.

DATE 27-OCT-81

ENG.

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DATE 27-OCT-81

DSK1:GLN01.T2P1106.1500J27-OCT-81 18:22 NEXT HIGHER ASSEMBLY:

FIRST USED ON OPTION/MODEL: 11/730

B-00-M8391-0-0

SIZE CODE

D GL

NUMBER

M8391-0-0

REV. A

MEM. CTRL. ROM
AND PAL LISTINGS

PART NUMBER: 23-044J5-00
DEVICE TYPE: PAL16LB
SCHEMATIC SHEET #10-CS-M8391-0-MCTA
LOCATION/DESCRIPTION: E61/ CONTROL PREFETCH
ASSIGNED PIN NUMBER:

1= CSR.19	8= LVA3	15= NC
2= CPUG	9= ERR.SUM.CLK	16= CSR.2.CLK
3= OPEN.CONT.LATCH	10= GND	17= LR.CSR.1
4= PG.BND.PREF	11= NC	18= OP.PREF.ADDR
5= PG.BND	12= OP.ARY.ADDR	19= PG.BOUND
6= LR.CSR	13= CPU.CYCLE	20= VCC
7= LVA2	14= CLR.LB.RDS	

EQUATIONS:

IF(VCC) OP.ARY.ADDR:=OP.PREF.ADDR

IF(VCC) CLR.LB.RDS:=LR.CSR=LVA3=LVA2

IF(VCC) /CSR.2.CLK:=/ERR.SUM.CLK=LVA2
+ERR.SUM.CLK=LVA3
+ERR.SUM.CLK=LR.CSR
+LR.CSR=CPU.CYCLE
+CPU.CYCLE=LVA3
+CPU.CYCLE=LVA2

IF(VCC) /LR.CSR.1:=/LR.CSR
+LVA2
+LVA3

IF(VCC) OP.PREF.ADDR:=/CSR.19=CPUG=OPEN.CONT.LATCH
+OP.PREF.ADDR=OPEN.CONT.LATCH
+OP.PREF.ADDR=CPUG

IF(VCC) PG.BOUND:=OP.PREF.ADDR=PG.BND.PREF
+OP.PREF.ADDR=PG.BND

IF(VCC) /CPU.CYCLE:=/CPU.CYCLE=CPUG
+CPUG=OPEN.CONT.LATCH

PART NUMBER: 23-061J5-00
DEVICE TYPE: PAL16LB
SCHEMATIC SHEET #10-CS-M8391-0-MCTF
LOCATION/DESCRIPTION: E61/ MCTF CSR CONTROL
ASSIGNED PIN NUMBER:

1=ERR.ADDR.CLK.A	8=CLR.LB.RDS	15=LB.LRDS
2=SEERR	9=2ND.MEM.CYC	16=NC
3=ERR	10=GND	17=NC
4=INH.REP.CRD	11=L.ECC.DIS	18=LRDS
5=CPU.CYCLE	12=NC	19=NC
6=ERR.SUM.CLK	13=LCRD	20=VCC
7=LR.CSR	14=DAT.ERR	

EQUATIONS:

IF(VCC) LB.LRDS:=/SEERR=ERR=ERR.ADDR.CLK.A=CPU.CYCLE
+CLR.LB.RDS=LB.LRDS

IF(VCC) DAT.ERR:=/SEERR=ERR=ERR.ADDR.CLK.A=CPU.CYCLE
+ERR=ERR.ADDR.CLK.A=L.ECC.DIS=CPU.CYCLE
+SEERR=ERR=ERR.ADDR.CLK.A=INH.REP.CRD=CPU.CYCLE
+CPU.CYCLE=LR.CSR=DAT.ERR
+ERR.SUM.CLK=LR.CSR=DAT.ERR
+LR.CSR=2ND.MEM.CYC=DAT.ERR

IF(VCC) /LRDS=CPU.CYCLE=ERR.SUM.CLK=2ND.MEM.CYC
+LR.CSR
+LRDS=SEERR
+LRDS=ERR
+LRDS=ERR.ADDR.CLK.A
+LRDS=CPU.CYCLE

IF(VCC) /LCRD=CPU.CYCLE=ERR.SUM.CLK=2ND.MEM.CYC
+LR.CSR
+LCRD=SEERR
+LCRD=ERR
+LCRD=ERR.ADDR.CLK.A
+LCRD=CPU.CYCLE
+LCRD=INH.REP.CRD

PART NUMBER: 23-017K3-00
DEVICE TYPE: PAL16R4
SCHEMATIC SHEET #10-CS-M8391-0-MCTL
LOCATION/DESCRIPTION: E3-E7,E13-E15/ DATA ROTATOR & LATCH
ASSIGNED PIN NUMBER:

1=REG.CLK.H	8=CYC1	15=/OAB16
2=/IAB08	9=MDR.DATOUT.EN	16=/OAB08
3=/IAB08	10=GND	17=/OAB08
4=/IAB16	11=/DIR.LRBYT.EN	18=MC08
5=/IAB24	12=MC24	19=MC08
6=/A0	13=MC16	20=VCC
7=/A1	14=/OAB24	

EQUATIONS:

IF(MDR.DATOUT.EN) /MC24:=CYC1=/A1=/A0=/IAB24
+A1=A0=/IAB08
+A1=A0=/IAB08
+A1=A0=/IAB16
+CYC1=A1=A0=/OAB24

IF(MDR.DATOUT.EN) /MC16:=CYC1=/A1=/A0=/IAB16
+CYC1=A1=A0=/IAB24
+A1=A0=/IAB08
+A1=A0=/IAB08
+CYC1=A1=A0=/OAB16

OAB24:=CYC1=MDR.DATOUT.EN=A1=A0=MC24
+CYC1=MDR.DATOUT.EN=A1=A0=MC16
+CYC1=MDR.DATOUT.EN=A1=A0=MC08
+CYC1=MDR.DATOUT.EN=A1=A0=MC08
+CYC1=OAB24

OAB16:=CYC1=MDR.DATOUT.EN=A1=A0=MC16
+CYC1=MDR.DATOUT.EN=A1=A0=MC08
+CYC1=MDR.DATOUT.EN=A1=A0=MC08
+CYC1=MDR.DATOUT.EN=A1=A0=MC24
+CYC1=MDR.DATOUT.EN=A1=A0=MC16
+CYC1=OAB16
+CYC1=A1=A0=IAB24=MDR.DATOUT.EN

OAB08:=CYC1=MDR.DATOUT.EN=A1=A0=MC08
+CYC1=MDR.DATOUT.EN=A1=A0=MC08
+CYC1=MDR.DATOUT.EN=A1=A0=MC24
+CYC1=MDR.DATOUT.EN=A1=A0=MC16
+CYC1=OAB08
+CYC1=MDR.DATOUT.EN=A1=A0=IAB16
+CYC1=MDR.DATOUT.EN=A1=A0=IAB24

OAB08:=CYC1=MDR.DATOUT.EN=A1=A0=MC08
+CYC1=MDR.DATOUT.EN=A1=A0=MC24
+CYC1=MDR.DATOUT.EN=A1=A0=MC16
+CYC1=MDR.DATOUT.EN=A1=A0=MC08
+CYC1=OAB08
+CYC1=MDR.DATOUT.EN=A1=A0=IAB08
+CYC1=MDR.DATOUT.EN=A1=A0=IAB16
+CYC1=MDR.DATOUT.EN=A1=A0=IAB24

IF(MDR.DATOUT.EN) /MC08:=CYC1=/A1=/A0=/IAB08
+CYC1=A1=A0=/IAB16
+CYC1=A1=A0=/IAB24
+A1=A0=/IAB08
+CYC1=A1=/OAB08
+CYC1=A1=A0=/OAB08

IF(MDR.DATOUT.EN) /MC08:=CYC1=/A1=/A0=/IAB08
+CYC1=A1=A0=/IAB08
+CYC1=A1=A0=/IAB16
+CYC1=A1=A0=/IAB24
+CYC1=OAB08

23-044J5-00
23-061J5-00
23-017K3-00

THIS DRAWING AND SPECIFICATIONS
HEREIN ARE THE PROPERTY OF
DIGITAL EQUIPMENT CORPORATION AND
SHALL NOT BE REPRODUCED OR COPIED
OR USED IN WHOLE OR IN PART OR
THE BASIS FOR THE MANUFACTURE
OF ANY ITEM WITHOUT WRITTEN
PERMISSION. COPYRIGHT © 1981
DIGITAL EQUIPMENT CORPORATION

REVISIONS
CHK CHANGE NO. REV

digital

DRN
CHK'D

DATE
27-OCT-81

ENG.
DATE

BOARD LOCATION:
SHEET 25 OF 16

SIZE CODE
D GL

NUMBER
M8391-0-0

REV.
A

PART NUMBER: 23-010K3-00
DEVICE TYPE: PAL16R4
SCHEMATIC SHEET #10-CS-M8391-0-MCTB
LOCATION/DESCRIPTION: E47.E50/ VAR (2 INPUT MUX)
ASSIGNED PIN NUMBER:
1= REG.CLK 8= A3 15= LVA2
2= A0 9= B3 16= LVA1
3= B0 10= GND 17= LVA0
4= A1 11= REG.OUT.EN.L 18= CONTROL
5= B1 12= CARRY3.OUT 19= CIN
6= A2 13= LOAD 20= VCC
7= B2 14= LVA3

EQUATIONS:
IF[VCC] /CARRY3.OUT:=/LVA3
 +/LVA2
 +/LVA1
 +/LVA0
 +/CIN

/LVA3:=/LOAD=/CONTROL=/LVA3
 +/LOAD=/CONTROL=/A3
 +/LOAD=CONTROL=/B3
 +/LOAD=CONTROL=LVA3=LVA2=LVA1=LVA0=CIN
 +/LOAD=CONTROL=/LVA3=/LVA2
 +/LOAD=CONTROL=/LVA3=/LVA1
 +/LOAD=CONTROL=/LVA3=/LVA0
 +/LOAD=CONTROL=/LVA3=/CIN

/LVA2:=/LOAD=/CONTROL=/LVA2
 +/LOAD=/CONTROL=/A2
 +/LOAD=CONTROL=/B2
 +/LOAD=CONTROL=LVA2=LVA1=LVA0=CIN
 +/LOAD=CONTROL=/LVA2=/LVA1
 +/LOAD=CONTROL=/LVA2=/LVA0
 +/LOAD=CONTROL=/LVA2=/CIN

/LVA1:=/LOAD=/CONTROL=/LVA1
 +/LOAD=/CONTROL=/A1
 +/LOAD=CONTROL=LVA1=LVA0=CIN
 +/LOAD=CONTROL=/LVA1=/LVA0
 +/LOAD=CONTROL=/LVA1=/CIN

/LVA0:=/LOAD=/CONTROL=/LVA0
 +/LOAD=/CONTROL=/A0
 +/LOAD=CONTROL=/B0
 +/LOAD=CONTROL=CIN=LVA0
 +/LOAD=CONTROL=CIN=LVA0

PART NUMBER: 23-019K3-00
DEVICE TYPE: PAL16R4
SCHEMATIC SHEET #10-CS-M8391-0-MCTB
LOCATION/DESCRIPTION: E26.E70.E67/ VAR (2 INPUT MUX)
ASSIGNED PIN NUMBER:
1= REG.CLK 8= A3 15= LVA2
2= A0 9= B3 16= LVA1
3= B0 10= GND 17= LVA0
4= A1 11= REG.OUT.EN.L 18= CONTROL
5= B1 12= CARRY3.OUT 19= CIN
6= A2 13= LOAD 20= VCC
7= B2 14= LVA3

EQUATIONS:
IF[VCC] /CARRY3.OUT:=/LVA3
 +/LVA2
 +/LVA1
 +/CIN

/LVA3:=/LOAD=/CONTROL=/LVA3
 +/LOAD=/CONTROL=/A3
 +/LOAD=CONTROL=/B3
 +/LOAD=CONTROL=LVA3=LVA2=LVA1=CIN
 +/LOAD=CONTROL=/LVA3=/LVA2
 +/LOAD=CONTROL=/LVA3=/LVA1
 +/LOAD=CONTROL=/LVA3=/CIN

/LVA2:=/LOAD=/CONTROL=/LVA2
 +/LOAD=/CONTROL=/A2
 +/LOAD=CONTROL=/B2
 +/LOAD=CONTROL=LVA2=LVA1=CIN
 +/LOAD=CONTROL=/LVA2=/LVA1
 +/LOAD=CONTROL=/LVA2=/CIN

/LVA1:=/LOAD=/CONTROL=/LVA1
 +/LOAD=/CONTROL=/A1
 +/LOAD=CONTROL=/B1
 +/LOAD=CONTROL=LVA1=CIN
 +/LOAD=CONTROL=/LVA1=/CIN

/LVA0:=/LOAD=/LVA0
 +/LOAD=/CONTROL=/A0
 +/LOAD=CONTROL=/B0

PART NUMBER: 23-023K3-00
DEVICE TYPE: PAL16R4
SCHEMATIC SHEET #10-CS-M8391-0-MCTE
LOCATION/DESCRIPTION: E106/ MCTE POWER UP & INIT
ASSIGNED PIN NUMBER:
1= REG.CLK 8= ISSYN 15= /TIMEOUT.A
2= DCLO 9= /REF.IN.PROG 16= /PUR.FL
3= 5V.PUR.UP 10= GND 17= /PUR.UP.FLP
4= OPEN.FUNC.LAT 11= REG.OUT.EN.L 18= INTR
5= ERROR 12= LISSYN 19= /PURF.OR.REF
6= ALLOW.REF 13= /START.REF.CYC 20= VCC
7= BMSYN 14= /TIMEOUT

EQUATIONS:
IF[VCC] PURF.OR.REF:=START.REF.CYC
 +/PUR.FL

IF[VCC] /LISSYN:=/BMSYN=/INTR
 +/ISSYN=/LISSYN
 +/ERROR

PUR.FL:=/PUR.UP.FLP
 +/PUR.FL=DCLO
 +/DCLO=OPEN.FUNC.LAT
 +/DCLO=ALLOW.REF

PUR.UP.FLP:=5V.PUR.UP

TIMEOUT.A:=REF.IN.PROG

TIMEOUT:=/TIMEOUT.A=/REF.IN.PROG

23-010K3-00
23-019K3-00
23-023K3-00

G.H. WERNER, 1106, 1500 KILPATRICK DR., SCALE 2, "D" RELEASE ROM
G.H. WERNER, GILBERT, PLD 1106, 1500 27-OCT-81 18:29

REVISIONS		DATE		ENG.		DATE		TITLE	
CHK	CHANGE NO.	REV	DATE	ENG.	DATE	BOARD LOCATION	SIZE	CODE	NUMBER
			27-OCT-81	11	11	11	11	11	11
FIRST USED ON OPTION/MODEL: 11/730						B-00-M8391-0-0		D GL M8391-0-0	
REV. A									

PART NUMBER: 23-026K3-00
DEVICE TYPE: PAL16R4
SCHEMATIC SHEET #1:D-CS-M8391-0-MCTF
LOCATION/DESCRIPTION: E68/ MCTF UNIBUS CSR 2
ASSIGNED PIN NUMBER:
1= REG.CLK
2= CLR.ERR
3= NPM
4= LUB.RDS
5= LUR.NOT.VALID
6= GEN.PB
7= PROT.PAR
8= VALID
9= TBM
10= GND
11= REG.OUT.EN
12= TB.PAR.ERR
13= PAR.A
14= LUR.NOT.VALID
15= LUB.RDS
16= LUB.NM
17= LUB.TB.PAR.ERR
18= TBPB
19= LUB.ERR.SUM
20= VCC

EQUATIONS:
IF VCC TB.PAR.ERR = GEN.PB = PROT.PAR = PAR.A
+ GEN.PB = PROT.PAR = PAR.A
+ GEN.PB = PROT.PAR = PAR.A
+ GEN.PB = PROT.PAR = PAR.A
LUR.NOT.VALID = LUB.NM = LUR.NOT.VALID
+ LUB.TB.PAR.ERR = LUR.NOT.VALID
+ TB.PAR.ERR = LUR.NOT.VALID
+ LUR.NOT.VALID = LUR.NOT.VALID
+ CLR.ERR
+ LUB.RDS = LUR.NOT.VALID
LUB.RDS = LUB.RDS
+ CLR.ERR
+ LUB.TB.PAR.ERR = LUB.RDS
+ LUB.NM = LUB.RDS
+ LUR.NOT.VALID = LUB.RDS
LUB.NM = LUB.NM = LUB.NM
+ CLR.ERR
+ LUB.TB.PAR.ERR = LUB.NM
+ TB.PAR.ERR = LUB.NM
+ LUB.RDS = LUB.NM
+ LUR.NOT.VALID = LUB.NM
+ LUR.NOT.VALID = LUB.NM
LUB.TB.PAR.ERR = LUB.TB.PAR.ERR = PAR.A = GEN.PB = PROT.PAR
+ LUB.TB.PAR.ERR = PAR.A = GEN.PB = PROT.PAR
+ LUB.TB.PAR.ERR = PAR.A = GEN.PB = PROT.PAR
+ LUB.TB.PAR.ERR = PAR.A = GEN.PB = PROT.PAR
+ CLR.ERR
+ LUB.RDS = LUB.TB.PAR.ERR
+ LUR.NOT.VALID = LUB.TB.PAR.ERR
+ LUB.NM = LUB.TB.PAR.ERR
IF TBM TBPB = VALID = GEN.PB = PROT.PAR
+ VALID = GEN.PB = PROT.PAR
+ VALID = GEN.PB = PROT.PAR
+ VALID = GEN.PB = PROT.PAR
IF VCC LUB.ERR.SUM = NM
+ VALID
+ LUR.NOT.VALID
+ GEN.PB = PROT.PAR = PAR.A
+ GEN.PB = PROT.PAR = PAR.A
+ GEN.PB = PROT.PAR = PAR.A
+ GEN.PB = PROT.PAR = PAR.A
IF VCC PAR.A = TBPB = VALID
+ TBPB = VALID

PART NUMBER: 23-056K3-00
DEVICE TYPE: PAL16R4
SCHEMATIC SHEET #1:D-CS-M8391-0-MCTF
LOCATION/DESCRIPTION: E91/ ARBITRATOR
ASSIGNED PIN NUMBER:
1= REG.CLK
2= LMPR
3= LSACK
4= LBBST
5= TIMEOUT
6= CPUR
7= CONT.FUNC.LAT
8= SET.LOCK
9= CPUDR
10= GND
11= REG.OUT.EN
12= CLEAR.LOCK
13= LMSYN
14= LOCK
15= R1
16= CPUG
17= NPG
18= LBBST
19= LUB.ACTIVITY
20= VCC

EQUATIONS:
LOCK = LOCK = CLEAR.LOCK
+ SET.LOCK = CLEAR.LOCK
R1 = TIMEOUT = NPG
+ R1 = NPG
NPG = LMPR = LSACK = LOCK = SET.LOCK
+ LMPR = LSACK = LOCK = CPUR = CPUG
+ NPG = LSACK = R1 = TIMEOUT
+ NPG = LSACK = R1
CPUG = LOCK = CONT.FUNC.LAT = CPUR = CPUDR = NPG = LSACK = LBBST = LBBST
+ LOCK = CONT.FUNC.LAT = CPUR = CPUDR = LBBST
+ LOCK = CONT.FUNC.LAT = CPUR = CPUDR = LMSYN
+ CPUG = CLEAR.LOCK = SET.LOCK = CPUDR
+ CPUG = CLEAR.LOCK = SET.LOCK = CPUDR
IF VCC LUB.ACTIVITY = LMPR = LBBST = LOCK
+ LSACK = LBBST = LOCK
+ NPG = LBBST = LOCK
+ LBBST = LBBST = LOCK

PART NUMBER: 23-060K3-00
DEVICE TYPE: PAL16R4
SCHEMATIC SHEET #1:D-CS-M8391-0-MCTF
LOCATION/DESCRIPTION: E68/ CSR 18
ASSIGNED PIN NUMBER:
1= REG.CLK
2= CLR.ERR
3= LUB.ACT
4= VALID
5= LUB.PHYS.ADDR.SEL
6= LUB.REG.SEL
7= PAGE.BOUND
8= ADDR.PH
9= 2.MEM.CYC
10= GND
11= REG.OUT.EN
12= P.ERR.SUM
13= SYS.ADRS.VIOL
14= LUR.XPG.ERR
15= ADP.REG.SEL
16= LUB.BUSY
17= LVALID
18= LUR.NOT.VALID
19= LUR.CHK
20= VCC

EQUATIONS:
IF VCC P.ERR.SUM = LUR.XPG.ERR
+ ADP.REG.SEL
+ LUB.BUSY
+ LVALID
LUR.XPG.ERR = CLR.ERR
+ 2.MEM.CYC
+ PAGE.BOUND = SYS.ADRS.VIOL
+ SYS.ADRS.VIOL = LUR.CHK = CLR.ERR
+ ADDR.PH = SYS.ADRS.VIOL
ADP.REG.SEL = CLR.ERR
+ LUB.REG.SEL
LUB.BUSY = CLR.ERR = LUR.CHK
+ LUB.ACT = CLR.ERR = LUR.CHK
+ LUB.PHYS.ADDR.SEL = CLR.ERR = LUR.CHK
+ LUB.PHYS.ADDR.SEL = CLR.ERR = LUR.CHK
LVALID = CLR.ERR
+ VALID
+ ADDR.PH
IF VCC LUR.NOT.VALID = 2.MEM.CYC = VALID = ADDR.PH
+ 2.MEM.CYC = SYS.ADRS.VIOL

23-026K3-00
23-056K3-00
23-060K3-00

G.H. HARNER, (1186,1500) JOLNCE, DPL, SCALE 2, "0" RELEASE BOX
G.H. HARNER, (1186,1500) JOLNCE, DPL, SCALE 2, "0" RELEASE BOX
27-OCT-81 18:25

REVISIONS		DATE		ENG.		DATE		TITLE	
CHK	CHANGE NO.	REV	DATE	DATE	DATE	DATE	DATE	DATE	DATE
								MEM. CTRL. ROM AND PAL LISTINGS	
								SIZE CODE NUMBER REV.	
								D GL M8391-0-0 A	

PART NUMBER: 23-005K4-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET #1:D-CS-M8391-0-MCTB
LOCATION/DESCRIPTION: E72/ MCTB VAR 6 BIT COUNTER (0)
ASSIGNED PIN NUMBER:

1= REG.CLK	8= CONTROL	15= LA3
2= A0	9= LOAD	16= LA2
3= A1	10= GND	17= LA1
4= A2	11= REG.OUT.EN	18= LA0
5= A3	12= SYS.ADRS.VIOL	19= CIN
6= A4	13= LA5	20= VCC
7= A5	14= LA4	

EQUATIONS:

IF VCC1 /SYS.ADRS.VIOL1=/LA4
+/LA3
+/LA2
+/LA1
+/LA0
+/CIN

/LA51=LOAD=/CONTROL=/A5
+/LOAD=/LA5

/LA41=LOAD=/CONTROL=/A4
+/LOAD=/CONTROL=/LA4
+/LOAD=CONTROL=LA4=LA3=LA2=LA1=LA0=CIN
+/LOAD=CONTROL=/LA0=/LA4
+/LOAD=CONTROL=/LA1=/LA4
+/LOAD=CONTROL=/LA2=/LA4
+/LOAD=CONTROL=/LA3=/LA4
+/LOAD=CONTROL=/CIN=/LA4

/LA31=LOAD=/CONTROL=/A3
+/LOAD=/CONTROL=/LA3
+/LOAD=CONTROL=LA3=LA2=LA1=LA0=CIN
+/LOAD=CONTROL=/LA0=/LA3
+/LOAD=CONTROL=/LA1=/LA3
+/LOAD=CONTROL=/LA2=/LA3
+/LOAD=CONTROL=/CIN=/LA3

/LA21=LOAD=/CONTROL=/A2
+/LOAD=/CONTROL=/LA2
+/LOAD=CONTROL=LA2=LA1=LA0=CIN
+/LOAD=CONTROL=/LA0=/LA2
+/LOAD=CONTROL=/LA1=/LA2
+/LOAD=CONTROL=/CIN=/LA2

/LA11=LOAD=/CONTROL=/A1
+/LOAD=/CONTROL=/LA1
+/LOAD=CONTROL=LA1=LA0=CIN
+/LOAD=CONTROL=/LA0=/LA1
+/LOAD=CONTROL=/CIN=/LA1

/LA01=LOAD=/CONTROL=/A0
+/LOAD=/CONTROL=/LA0
+/LOAD=CONTROL=LA0=CIN
+/LOAD=CONTROL=/CIN=/LA0

PART NUMBER: 23-006K4-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET #1:D-CS-M8391-0-MCTK
LOCATION/DESCRIPTION: E72/ MCTK DATA ROTATOR CONTROL
ASSIGNED PIN NUMBER:

1= REG.CLK	8= LUBC0	15= RS0
2= LVA1	9= BYTE.OFFSET	16= RS1
3= LVA0	10= GND	17= A0
4= CPU.CYCLE	11= REG.OUT.EN	18= A1
5= LDT1	12= F0	19= F1
6= LDT0	13= ALIGN.LW	20= VCC
7= LUBC1	14= 2.MEM.CTC	

EQUATIONS:

/ALIGN.LW1=LDT1=LDT0=LVA0=LVA1

2.MEM.CYC1=CPU.CYCLE=LVA1=LDT1
+/CPU.CYCLE=LVA1=LVA0=LDT1=LDT0
+/CPU.CYCLE=LUBC1=LVA1=BYTE.OFFSET
+/CPU.CYCLE=LUBC1=LUBC0=LVA1=LVA0=BYTE.OFFSET
+/CPU.CYCLE=LVA1=LVA0=LDT0

RS01=CPU.CYCLE=LDT0
+/CPU.CYCLE=LUBC1
+/CPU.CYCLE=LUBC0
+/F1
+/F0

RS11=CPU.CYCLE=LDT1
+/F1
+/F0

A01=CPU.CYCLE=LVA0=/F1=/F0
+/CPU.CYCLE=F1=F0
+/CPU.CYCLE=BYTE.OFFSET

A11=CPU.CYCLE=LVA1=/F0=/F1
+/CPU.CYCLE=F1=/F0
+/CPU.CYCLE=LVA1

PART NUMBER: 23-007K4-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET #1:D-CS-M8391-0-MCTB
LOCATION/DESCRIPTION: E20/ MCTB VAR 6-BIT COUNTER(A)
ASSIGNED PIN NUMBER:

1= REG.CLK	8= CONTROL	15= LA3
2= A0	9= LOAD	16= LA2
3= A1	10= GND	17= LA1
4= A2	11= REG.OUT.EN.L	18= LA0
5= A3	12= CARRY4.OUT	19= CIN
6= A4	13= LA5	20= VCC
7= A5	14= LA4	

EQUATIONS:

IF VCC1 /CARRY4.OUT1=/LA4
+/LA3
+/LA2
+/LA1
+/LA0
+/CIN

/LA51=LOAD=/CONTROL=/A5
+/LOAD=/CONTROL=/LA5
+/LOAD=CONTROL=LA5=LA4=LA3=LA2=LA1=LA0=CIN
+/LOAD=CONTROL=/CARRY4.OUT=/LA5

/LA41=LOAD=/CONTROL=/A4
+/LOAD=/CONTROL=/LA4
+/LOAD=CONTROL=LA4=LA3=LA2=LA1=LA0=CIN
+/LOAD=CONTROL=/LA0=/LA4
+/LOAD=CONTROL=/LA1=/LA4
+/LOAD=CONTROL=/LA2=/LA4
+/LOAD=CONTROL=/LA3=/LA4
+/LOAD=CONTROL=/CIN=/LA4

/LA31=LOAD=/CONTROL=/A3
+/LOAD=/CONTROL=/LA3
+/LOAD=CONTROL=LA3=LA2=LA1=LA0=CIN
+/LOAD=CONTROL=/LA0=/LA3
+/LOAD=CONTROL=/LA1=/LA3
+/LOAD=CONTROL=/LA2=/LA3
+/LOAD=CONTROL=/CIN=/LA3

/LA21=LOAD=/CONTROL=/A2
+/LOAD=/CONTROL=/LA2
+/LOAD=CONTROL=LA2=LA1=LA0=CIN
+/LOAD=CONTROL=/LA0=/LA2
+/LOAD=CONTROL=/LA1=/LA2
+/LOAD=CONTROL=/CIN=/LA2

/LA11=LOAD=/CONTROL=/A1
+/LOAD=/CONTROL=/LA1
+/LOAD=CONTROL=LA1=LA0=CIN
+/LOAD=CONTROL=/LA0=/LA1
+/LOAD=CONTROL=/CIN=/LA1

/LA01=LOAD=/CONTROL=/A0
+/LOAD=/CONTROL=/LA0
+/LOAD=CONTROL=LA0=CIN
+/LOAD=CONTROL=/CIN=/LA0

23-005K4-00
23-006K4-00
23-007K4-00

THIS DRAWING AND SPECIFICATIONS
HEREIN ARE THE PROPERTY OF
DIGITAL EQUIPMENT CORPORATION
AND SHALL NOT BE REPRODUCED OR
COPIED IN ANY MANNER OR BY
ANY MEANS, ELECTRONIC OR
MECHANICAL, INCLUDING
PHOTOCOPYING, RECORDING,
OR BY ANY INFORMATION
STORAGE AND RETRIEVAL
SYSTEM, WITHOUT WRITTEN
PERMISSION OF DIGITAL
EQUIPMENT CORPORATION.

REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN	DATE	ENG.	DATE	TITLE
	CHK'D	DATE	DATE	DATE	MEM. CTRL. ROM AND PAL LISTINGS
DSK:GLMCP2.12P1106.1500127-OCT-81 18123 NEXT HIGHER ASSEMBLY		SIZE		CODE	NUMBER
FIRST USED ON OPTION/MODEL 11/730		B-DD-M8391-0-0		D	GL M8391-0-0
				REV.	A

PART NUMBER: 23-000K4-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET #1D-CS-M8391-0-MCTB
LOCATION/DESCRIPTION: E03/ MCTB MISC CONTROL
ASSIGNED PIN NUMBER:

1= REG.CLK	8= SPF2	15= SEC.CYC
2= L.MTE	9= LDT0	16= /UB.T0.SEL
3= CPU.CYCLE	10= GND	17= /ADDR.PH
4= SPF0	11= /REG.OUT.EN	18= /BG
5= OPEN.FUNC.LAT	12= BBSY	19= BBSY
6= /T0.DATA.EN	13= IC0	20= VCC
7= SPF1	14= IC1	

EQUATIONS:

IF(VCC) /BBSY = /BBSY / BBSY
+ /BBSY / IC1
+ /BBSY / IC0

BG = SPF2 * SPF1 * SPF0

/IC1 = SPF2 / SPF1
+ /SPF2 / IC1
+ SPF2 * SPF1 * SPF0 / IC1

/IC0 = SPF2 / SPF1 * SPF0
+ /SPF2 / IC0
+ SPF2 * SPF1 * SPF0 / IC0
+ SPF2 * SPF1 * SPF0 * LDT0

ADDR.PH = /L.MTE * CPU.CYCLE * /T0.DATA.EN
+ /SPF2 * SPF1 * SPF0
+ ADDR.PH * OPEN.FUNC.LAT * /T0.DATA.EN

UB.T0.SEL = /OPEN.FUNC.LAT * UB.T0.SEL
+ /SPF2 * SPF1 * SPF0

/SEC.CYC = OPEN.FUNC.LAT
+ /SEC.CYC * SPF2
+ /SEC.CYC * SPF0
+ /SEC.CYC * SPF1
+ SPF2 * SPF1 * SPF0

PART NUMBER: 23-010K4-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET #1D-CS-M8391-0-MCTF
LOCATION/DESCRIPTION: E57/ MEMORY CSR 1A
ASSIGNED PIN NUMBER:

1= REG.CLK	8= BYT.OFFSET	15= L.ACC.REF
2= /CLR.ERR	9= /OP.ERR	16= L.TB.MISS
3= /ADDR.PH	10= GND	17= L.NOM
4= NOM	11= /REG.OUT.EN	18= ILL.LB.OPER
5= /TB.MISS	12= /ERR.SUM	19= /T0.PAR
6= /ACC.REF	13= L.TB.PAR	20= VCC
7= /MOD.REF	14= L.MOD.REF	

EQUATIONS:

IF(VCC) ERR.SUM = L.TB.MISS
+ ILL.LB.OPER
+ L.TB.PAR
+ L.MOD.REF
+ L.ACC.REF
+ L.NOM

/L.TB.PAR = CLR.ERR
+ /T0.PAR
+ ADDR.PH

/L.MOD.REF = CLR.ERR
+ /MOD.REF
+ ADDR.PH

/L.ACC.REF = CLR.ERR
+ /ACC.REF
+ ADDR.PH

/L.TB.MISS = CLR.ERR
+ /TB.MISS * BYT.OFFSET
+ ADDR.PH

/L.NOM = CLR.ERR
+ /NOM

/ILL.LB.OPER = CLR.ERR
+ /OP.ERR

PART NUMBER: 23-003K5-00
DEVICE TYPE: PAL16R8
SCHEMATIC SHEET #1D-CS-M8391-0-MCTB
LOCATION/DESCRIPTION: E77/ MCTB PREFETCH ADDRESS REG/COUNT
ASSIGNED PIN NUMBER:

1= REG.CLK.	8= A0	15= LA6
2= A2	9= NC	16= LA5
3= A3	10= GND	17= LA4
4= A4	11= REG.OUT.EN.L	18= LA3
5= A5	12= PAGE.BOUND.PREF	19= LA2
6= A6	13= LA0	20= VCC
7= A7	14= LA7	

EQUATIONS:

/PAGE.BOUND.PREF = /A8
+ /A7
+ /A6
+ /A5
+ /A4
+ /A3
+ /A2

/LA8 = A2 * A3 * A4 * A5 * A6 * A7 * A0
+ /A8 * A7
+ /A8 * A6
+ /A8 * A5
+ /A8 * A4
+ /A8 * A3
+ /A8 * A2

/LA7 = A2 * A3 * A4 * A5 * A6 * A7
+ /A7 * A6
+ /A7 * A5
+ /A7 * A4
+ /A7 * A3
+ /A7 * A2

/LA6 = A2 * A3 * A4 * A5 * A6
+ /A6 * A5
+ /A6 * A4
+ /A6 * A3
+ /A6 * A2

/LA5 = A2 * A3 * A4 * A5
+ /A5 * A4
+ /A5 * A3
+ /A5 * A2

/LA4 = A2 * A3 * A4
+ /A4 * A3
+ /A4 * A2

/LA3 = A2 * A3
+ /A3 * A2

/LA2 = A2

23-000K4-00
23-010K4-00
23-003K5-00

THIS DRAWING AND SPECIFICATIONS
HEREIN ARE THE PROPERTY OF
DIGITAL EQUIPMENT CORPORATION AND
SHALL NOT BE REPRODUCED OR COPIED
OR USED IN WHOLE OR IN PART AS
THE BASIS FOR THE MANUFACTURE OF
ANY OTHER ITEMS WITHOUT WRITTEN
PERMISSION. COPYRIGHT © 1981
DIGITAL EQUIPMENT CORPORATION

REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	ENG.	DATE	TITLE:
	27-OCT-81			MEM. CTRL. ROM
CHK'D.	DATE	BOARD LOCATION:	SHEET	OF 16
05K:GLN06.12P:1106.115001127-OCT-81 18123	NEXT HIGHER ASSEMBLY:		SIZE	CODE
FIRST USED ON OPTION/MODEL: 11/730	B-DD-M8391-0-0		D	GL
			NUMBER	REV.
			M8391-0-0	A

8			7			6			5			4			3			2			1		
HEX LOC	HEX DAT	SIN DAT	HEX LOC	HEX DAT	SIN DAT	HEX LOC	HEX DAT	SIN DAT	HEX LOC	HEX DAT	SIN DAT	HEX LOC	HEX DAT	SIN DAT	HEX LOC	HEX DAT	SIN DAT	HEX LOC	HEX DAT	SIN DAT	HEX LOC	HEX DAT	SIN DAT
000	00	00000000	040	01	00000001	080	60	01100000	0C0	01	00000001	100	00	00000000	140	60	01100000	180	01	00000001	1C0	02	00000010
001	00	00000000	041	01	00000001	081	00	00000000	0C1	00	00000000	101	00	00000000	141	50	01010000	181	81	10000001	1C1	02	00000010
002	00	00000000	042	01	00000001	082	01	00000001	0C2	00	00000000	102	60	01100000	142	00	00000000	182	60	01100000	1C2	5C	01011100
003	00	00000000	043	81	10000001	083	07	00000111	0C3	71	01110001	103	00	00000000	143	00	00000000	183	81	10000001	1C3	00	00000000
004	00	00000000	044	00	00000000	084	01	00000001	0C4	00	00000000	104	01	00000001	144	00	00000000	184	00	00000000	1C4	01	00000001
005	00	00000000	045	01	00000001	085	81	10000001	0C5	51	01010001	105	00	00000000	145	50	01010000	185	00	00000000	1C5	38	00111000
006	00	00000000	046	01	00000001	086	00	00000000	0C6	71	01110001	106	38	00111000	146	01	00000001	186	00	00000000	1C6	01	00000001
007	01	00000001	047	01	00000001	087	00	00000000	0C7	01	00000001	107	01	00000001	147	00	00000000	187	00	00000000	1C7	00	00000000
008	00	00000000	048	07	00000111	088	01	00000001	0C8	01	00000001	108	00	00000000	148	0E	00001110	188	10	00010000	1C8	02	00000010
009	60	01100000	049	01	00000001	089	00	00000000	0C9	01	00000001	109	01	00000001	149	00	00000000	189	10	00010000	1C9	02	00000010
00A	01	00000001	04A	01	00000001	08A	01	00000001	0CA	61	01100001	10A	01	00000001	14A	00	00000000	18A	01	00000001	1CA	5C	01011100
00B	01	00000001	04B	01	00000001	08B	01	00000001	0CB	03	00000011	10B	00	00000000	14B	01	00000001	18B	01	00000001	1CB	00	00000000
00C	01	00000001	04C	01	00000001	08C	01	00000001	0CC	01	00000001	10C	50	01010000	14C	01	00000001	18C	01	00000001	1CC	02	00000010
00D	01	00000001	04D	01	00000001	08D	01	00000001	0CD	01	00000001	10D	00	00000000	14D	0E	00001110	18D	00	00000000	1CD	02	00000010
00E	01	00000001	04E	01	00000001	08E	01	00000001	0CE	00	00000000	10E	11	00010001	14E	01	00000001	18E	10	00010000	1CE	01	00000001
00F	01	00000001	04F	21	00100001	08F	81	10000001	0CF	01	00000001	10F	00	00000000	14F	00	00000000	18F	00	00000000	1CF	01	00000001
010	01	00000001	050	71	01110001	090	07	00000111	0D0	01	00000001	110	00	00000000	150	20	00100000	190	00	00000000	1D0	06	00000110
011	01	00000001	051	31	00110001	091	11	00010001	0D1	01	00000001	111	10	00010000	151	00	00000000	191	00	00000000	1D1	50	01010000
012	01	00000001	052	60	01100000	092	00	00000000	0D2	01	00000001	112	01	00000001	152	21	00100001	192	60	01100000	1D2	00	00000000
013	60	01100000	053	01	00000001	093	21	00100001	0D3	81	10000001	113	01	00000001	153	00	00000000	193	81	10000001	1D3	00	00000000
014	01	00000001	054	01	00000001	094	00	00000000	0D4	01	00000001	114	40	01000000	154	07	00000111	194	00	00000000	1D4	00	00000000
015	01	00000001	055	01	00000001	095	11	00010001	0D5	71	01110001	115	81	10000001	155	01	00000001	195	00	00000000	1D5	00	00000000
016	01	00000001	056	81	10000001	096	01	00000001	0D6	00	00000000	116	11	00010001	156	01	00000001	196	14	00010100	1D6	01	00000001
017	01	00000001	057	01	00000001	097	20	00100000	0D7	01	00000001	117	00	00000000	157	60	01100000	197	00	00000000	1D7	00	00000000
018	01	00000001	058	01	00000001	098	E0	11100000	0D8	01	00000001	118	00	00000000	158	10	00010000	198	01	00000001	1D8	80	10000000
019	60	01100000	059	00	00000000	099	81	10000001	0D9	11	00010001	119	80	10000000	159	00	00000000	199	01	00000001	1D9	80	10000000
01A	01	00000001	05A	01	00000001	09A	01	00000001	0DA	0A	00000001	11A	00	00000000	15A	4E	01001110	19A	06	00000110	1DA	60	01100000
01B	01	00000001	05B	01	00000001	09B	07	00000111	0DB	31	00110001	11B	60	01100000	15B	00	00000000	19B	00	00000000	1DB	80	10000000
01C	50	01010000	05C	07	00000111	09C	E0	11100000	0DC	01	00000001	11C	00	00000000	15C	00	00000000	19C	0C	00001100	1DC	00	00000000
01D	01	00000001	05D	01	00000001	09D	81	10000001	0DD	01	00000001	11D	01	00000001	15D	06	00000110	19D	01	00000001	1DD	80	10000000
01E	01	00000001	05E	00	00000000	09E	81	10000001	0DE	01	00000001	11E	01	00000001	15E	01	00000001	19E	14	00010100	1DE	01	00000001
01F	01	00000001	05F	01	00000001	09F	00	00000000	0DF	60	01100000	11F	01	00000001	15F	70	01110000	19F	00	00000000	1DF	00	00000000
020	07	00000111	060	00	00000000	0A0	01	00000001	0E0	01	00000001	120	00	00000000	160	10	00010000	1A0	00	00000000	1E0	00	00000000
021	01	00000001	061	00	00000000	0A1	01	00000001	0E1	66	01100110	121	10	00010000	161	06	00000110	1A1	00	00000000	1E1	00	00000000
022	01	00000001	062	01	00000001	0A2	01	00000001	0E2	61	01100001	122	00	00000000	162	01	00000001	1A2	00	00000000	1E2	00	00000000
023	01	00000001	063	00	00000000	0A3	00	00000000	0E3	01	00000001	123	01	00000001	163	80	10000000	1A3	00	00000000	1E3	00	00000000
024	01	00000001	064	40	01000000	0A4	01	00000001	0E4	01	00000001	124	01	00000001	164	00	00000000	1A4	00	00000000	1E4	80	10000000
025	01	00000001	065	50	01010000	0A5	01	00000001	0E5	01	00000001	125	81	10000001	165	00	00000000	1A5	00	00000000	1E5	80	10000000
026	01	00000001	066	0E	00001110	0A6	01	00000001	0E6	01	00000001	126	03	00000011	166	01	00000001	1A6	00	00000000	1E6	01	00000001
027	01	00000001	067	61	01100001	0A7	81	10000001	0E7	01	00000001	127	00	00000000	167	70	01110000	1A7	00	00000000	1E7	00	00000000
028	01	00000001	068	01	00000001	0A8	11	00010001	0E8	00	00000000	128	01	00000001	168	01	00000001	1A8	00	00000000	1E8	14	00010100
029	01	00000001	069	00	00000000	0A9	00	00000000	0E9	01	00000001	129	21	00100001	169	01	00000001	1A9	01	00000001	1E9	86	10000110
02A	01	00000001	06A	01	00000001	0AA	21	00100001	0EA	71	01110001	12A	00	00000000	16A	5C	01011100	1AA	01	00000001	1EA	00	00000000
02B	07	00000111	06B	01	00000001	0AB	01	00000001	0EB	61	01100001	12B	60	01100000	16B	00	00000000	1AB	01	00000001	1EB	66	01100110
02C	01	00000001	06C	00	00000000	0AC	01	00000001	0EC	00	00000000	12C	00	00000000	16C	00	00000000	1AC	0C	00001100	1EC	00	00000000
02D	00	00000000	06D	00	00000000	0AD	01	00000001	0ED	11	00010001	12D	81	10000001	16D	10	00010000	1AD	00	00000000	1ED	80	10000000
02E	01	00000001	06E	00	00000000	0AE	01	00000001	0EE	71	01110001	12E	11	00010001	16E	00	00000000	1AE	14	00010100	1EE	01	00000001
02F	00	00000000	06F	01	00000001	0AF	01	00000001	0EF	01	00000001	12F	60	01100000	16F	00	00000000	1AF	00	00000000	1EF	60	01100000
030	00	00000000	070	00	00000000	0B0	21	00100001	0F0	00	00000000	130	00	00000000	170	01	00000001	1B0	00	00000000	1F0	10	00010000
031	01	00000001	071	01	00000001	0B1	81	10000001	0F1	06	00000110	131	01	00000001	171	01	00000001	1B1	80	10000000	1F1	10	00010000
032	01	00000001	072	00	00000000	0B2	00	00000000	0F2	00	00000000	132	70	01110000	172	5C	01011100	1B2	00	00000000	1F2	20	00100000
033	01	00000001	073	00	00000000	0B3	00	00000000	0F3	60	01100000	133	01	00000001	173	00	00000000	1B3	00	00000000	1F3	00	00000000
034	01	00000001	074	00	00000000	0B4	01	00000001	0F4	00													

8			7			6			5			4			3			2			1		
HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT
000	00	00000000	040	9D	10011101	080	94	10010100	0C0	94	10010100	100	94	10010100	140	94	10010100	180	94	10010100	1C0	9C	10011100
001	00	00000000	041	9C	10011100	081	94	10010100	0C1	A4	10100100	101	84	10000100	141	94	10010100	181	95	10010101	1C1	9C	10011100
002	00	00000000	042	9C	10011100	082	85	10000101	0C2	94	10010100	102	94	10010100	142	96	10010110	182	94	10010100	1C2	9C	10011100
003	00	00000000	043	9E	10011110	083	94	10010100	0C3	54	01010100	103	94	10010100	143	8C	10111100	183	95	10010101	1C3	9C	10011100
004	00	00000000	044	DC	11011100	084	94	10010100	0C4	A4	10100100	104	94	10010100	144	94	10010100	184	94	10010100	1C4	94	10010100
005	00	00000000	045	DC	11011100	085	95	10010101	0C5	9C	10011100	105	94	10010100	145	97	10010111	185	94	10010100	1C5	94	10010100
006	00	00000000	046	94	10010100	086	94	10010100	0C6	14	00010100	106	04	11010100	146	94	10010100	186	04	11010100	1C6	DC	11011100
007	C4	11000100	047	94	10010100	087	94	10010100	0C7	9C	10011100	107	94	10010100	147	A7	10100111	187	94	10010100	1C7	94	10010100
008	A4	10100100	048	94	10010100	088	94	10010100	0C8	9C	10011100	108	94	10010100	148	94	10010100	188	9C	10011100	1C8	9C	10011100
009	95	10010101	049	94	10010100	089	94	10010100	0C9	94	10010100	109	94	10010100	149	8C	10111100	189	9C	10011100	1C9	9C	10011100
00A	94	10010100	04A	94	10010100	08A	85	10000101	0CA	9C	10011100	10A	94	10010100	14A	94	10010100	18A	9C	10011100	1CA	9C	10011100
00B	94	10010100	04B	94	10010100	08B	94	10010100	0CB	9C	10011100	10B	94	10010100	14B	84	10000100	18B	9C	10011100	1CB	9C	10011100
00C	84	10000100	04C	94	10010100	08C	94	10010100	0CC	9C	10011100	10C	94	10010100	14C	E4	11100100	18C	9F	10011111	1CC	94	10010100
00D	94	10010100	04D	94	10010100	08D	94	10010100	0CD	9C	10011100	10D	94	10010100	14D	E7	11100111	18D	94	10010100	1CD	94	10010100
00E	95	10010101	04E	94	10010100	08E	94	10010100	0CE	DC	11011100	10E	DC	11011100	14E	94	10010100	18E	9C	10011100	1CE	DC	11011100
00F	94	10010100	04F	94	10010100	08F	54	10010100	0CF	94	10010100	10F	9C	10011100	14F	A4	10100100	18F	54	10010100	1CF	84	10000100
010	94	10010100	050	94	10010100	090	94	10010100	0D0	94	10010100	110	94	10010100	150	94	10010100	190	94	10010100	1D0	94	10010100
011	94	10010100	051	94	10010100	091	94	10010100	0D1	DC	11011100	111	94	10010100	151	8C	10111100	191	94	10010100	1D1	94	10010100
012	94	10010100	052	94	10010100	092	94	10010100	0D2	94	10010100	112	94	10010100	152	94	10010100	192	94	10010100	1D2	94	10010100
013	94	10010100	053	94	10010100	093	94	10010100	0D3	95	10010101	113	96	10010110	153	8C	10111100	193	95	10010101	1D3	9C	10011100
014	94	10010100	054	94	10010100	094	94	10010100	0D4	94	10010100	114	84	10000100	154	94	10010100	194	9C	10011100	1D4	94	10010100
015	04	11010100	055	94	10010100	095	94	10010100	0D5	A4	10100100	115	94	10010100	155	94	10010100	195	9C	10011100	1D5	94	10010100
016	85	10000101	056	9E	10011110	096	94	10010100	0D6	DC	11011100	116	94	10010100	156	04	11010100	196	9C	10011100	1D6	9C	10011100
017	94	10010100	057	94	10010100	097	96	10010110	0D7	84	10000100	117	95	10010101	157	94	10010100	197	8C	10111100	1D7	94	10010100
018	94	10010100	058	94	10010100	098	94	10010100	0D8	94	10010100	118	86	10010110	158	04	11010100	198	94	10010100	1D8	94	10010100
019	94	10010100	059	94	10010100	099	95	10010101	0D9	94	10010100	119	94	10010100	159	94	10010100	199	94	10010100	1D9	95	10010101
01A	94	10010100	05A	94	10010100	09A	94	10010100	0DA	94	10010100	11A	94	10010100	15A	04	11010100	19A	94	10010100	1DA	94	10010100
01B	85	10000101	05B	94	10010100	09B	94	10010100	0DB	94	10010100	11B	94	10010100	15B	94	10010100	19B	94	10010100	1DB	95	10010101
01C	97	10010111	05C	94	10010100	09C	94	10010100	0DC	94	10010100	11C	94	10010100	15C	94	10010100	19C	DC	11011100	1DC	94	10010100
01D	94	10010100	05D	94	10010100	09D	95	10010101	0DD	94	10010100	11D	94	10010100	15D	94	10010100	19D	9C	10011100	1DD	95	10010101
01E	94	10010100	05E	94	10010100	09E	94	10010100	0DE	94	10010100	11E	DF	11011111	15E	54	01010100	19E	9C	10011100	1DE	DC	11011100
01F	94	10010100	05F	94	10010100	09F	94	10010100	0DF	94	10010100	11F	94	10010100	15F	94	10010100	19F	94	10010100	1DF	94	10010100
020	94	10010100	060	94	10010100	0A0	94	10010100	0E0	94	10010100	120	94	10010100	160	94	10010100	1A0	94	10010100	1E0	8C	10111100
021	94	10010100	061	87	10000111	0A1	94	10010100	0E1	9C	10011100	121	94	10010100	161	94	10010100	1A1	84	10000100	1E1	94	10010100
022	96	10010110	062	94	10010100	0A2	94	10010100	0E2	94	10010100	122	84	10000100	162	94	10010100	1A2	84	10000100	1E2	85	10000101
023	94	10010100	063	87	10000111	0A3	94	10010100	0E3	9D	10011101	123	94	10010100	163	9F	10011111	1A3	84	10000100	1E3	94	10010100
024	94	10010100	064	84	10000100	0A4	94	10010100	0E4	94	10010100	124	94	10010100	164	94	10010100	1A4	9C	10011100	1E4	94	10010100
025	94	10010100	065	84	10000100	0A5	94	10010100	0E5	94	10010100	125	94	10010100	165	8C	10111100	1A5	9C	10011100	1E5	95	10010101
026	84	10000100	066	94	10010100	0A6	94	10010100	0E6	94	10010100	126	94	10010100	166	9C	10011100	1A6	84	10000100	1E6	DC	11011100
027	94	10010100	067	94	10010100	0A7	95	10010101	0E7	9D	10011101	127	94	10010100	167	9C	10011100	1A7	95	10010101	1E7	94	10010100
028	94	10010100	068	94	10010100	0A8	9C	10011100	0E8	A4	10100100	128	84	10000100	168	9C	10011100	1A8	96	10010110	1E8	9C	10011100
029	94	10010100	069	94	10010100	0A9	94	10010100	0E9	94	10010100	129	94	10010100	169	9C	10011100	1A9	14	00010100	1E9	94	10010100
02A	94	10010100	06A	94	10010100	0AA	94	10010100	0EA	94	10010100	12A	84	10000100	16A	9C	10011100	1AA	94	10010100	1EA	94	10010100
02B	94	10010100	06B	14	00010100	0AB	94	10010100	0EB	94	10010100	12B	94	10010100	16B	9C	10011100	1AB	94	10010100	1EB	94	10010100
02C	94	10010100	06C	A4	10100100	0AC	94	10010100	0EC	A4	10100100	12C	94	10010100	16C	84	10000100	1AC	DC	11011100	1EC	9C	10011100
02D	94	10010100	06D	9C	10011100	0AD	94	10010100	0ED	94	10010100	12D	94	10010100	16D	94	10010100	1AD	DC	11011100	1ED	94	10010100
02E	94	10010100	06E	94	10010100	0AE	94	10010100	0EE	94	10010100	12E	9C	10011100	16E	DC	11011100	1AE	9C	10011100	1EE	9C	10011100
02F	94	10010100	06F	94	10010100	0AF	94	10010100	0EF	94	10010100	12F	94	10010100	16F	94	10010100	1AF	94	10010100	1EF	94	10010100
030	94	10010100	070	94	10010100	0B0	94	10010100	0F0	94	10010100	130	8C	10111100	170	9C	10011100	1B0	A4	10100100	1F0	9C	10011100
031	94	10010100	071	94	10010100	0B1	95	10010101	0F1	94	10010100	131	94	10010100	171	9C	10011100	1B1	95	10010101	1F1	9C	10011100
032	1C	00011100	072	94	10010100	0B2	94	10010100	0F2	94	10010100	132	94	10010100	172	9C	10011100	1B2	94	10010100	1F2	94	10010100
033	9C	10011100	073	94	10010100	0B3	94	10010100	0F3	95	10010101	133	94	10010100	173	9C	10011100	1B3	94	10010100	1F3	9C	10011100
034	9C	10011100	074	94	10010100	0B4	94	10010100	0F4	94	10010100	134	04										

G.M. HARTER, (1106,1500) BLOC10, DPL, SCALE 2, -D- RELEASE BOX
G.M. HARTER BLOC10, PLO(1106,1500) 27-OCT-81 18130

THIS DRAWING AND SPECIFICATIONS
HEREIN ARE THE PROPERTY OF
DIGITAL EQUIPMENT CORPORATION AND
SHALL NOT BE REPRODUCED OR COPIED
OR USED IN ANY MANNER OR FOR ANY
PURPOSE WITHOUT THE WRITTEN
PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

REVISIONS	
CHK	CHANGE NO. REV

digital
FIRST USED ON OPTION/MODEL: 11/730

DATE	ENG.	DATE	TITLE
27-OCT-81	W.H. Hartner		MEM. CTRL. ROM AND PAL LISTINGS
DATE	BOARD LOCATION	SHEET	OF 16
18:24 NEXT HIGHER ASSEMBLY:	8-DD-MB391-0-0	SIZE CODE	NUMBER
D GL MB391-0-0		REV. A	

PART NUMBER: 23-03502-00
DEVICE TYPE: 512 X 8
SCHEMATIC SHEET #: D-CS-MB391-0-MCTM
LOCATION/DESCRIPTION: E62 / UCODE(24:31)

LEFT COLUMN OF BIN DATA IS MSB
BINARY DATA "1" = HIGH
BINARY DATA "0" = LOW

8			7			6			5			4			3			2			1		
HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT
000	00	00000000	040	01	00000001	080	08	00001000	0C0	02	00000010	100	02	00000010	140	81	10000001	180	00	00000000	1C0	02	00000010
001	00	00000000	041	01	00000001	081	81	10110001	0C1	01	00000001	101	01	00000001	141	01	00000001	181	31	00110001	1C1	02	00000010
002	00	00000000	042	01	00000001	082	02	00000010	0C2	02	00000010	102	02	00000010	142	81	10000001	182	00	00000000	1C2	01	00000001
003	00	00000000	043	02	00000010	083	81	10000001	0C3	01	00000001	103	01	00000001	143	01	00000001	183	31	00110001	1C3	01	00000001
004	00	00000000	044	01	00000001	084	81	10000001	0C4	01	00000001	104	41	01000001	144	81	10110001	184	01	00000001	1C4	02	00000010
005	00	00000000	045	01	00000001	085	85	10000101	0C5	81	10000001	105	01	00000001	145	01	00000001	185	01	00000001	1C5	02	00000010
006	00	00000000	046	98	10011000	086	02	00000010	0C6	01	00000001	106	41	01000001	146	01	00000001	186	01	00000001	1C6	01	00000001
007	09	11011001	047	81	10110001	087	01	00000001	0C7	81	10000001	107	01	00000001	147	01	00000001	187	01	00000001	1C7	02	00000010
008	41	01000001	048	01	00000001	088	01	00000001	0C8	80	10000000	108	01	00000001	148	01	00000001	188	01	00000001	1C8	02	00000010
009	08	00001000	049	02	00000010	089	85	10000101	0C9	01	00000001	109	01	00000001	149	01	00000001	189	01	00000001	1C9	02	00000010
00A	01	00000001	04A	02	00000010	08A	82	10000010	0CA	00	00000000	10A	01	00000001	14A	81	10000001	18A	41	01000001	1CA	01	00000001
00B	01	00000001	04B	01	00000001	08B	81	10000001	0CB	41	01000001	10B	01	00000001	14B	81	10000001	18B	01	00000001	1CB	01	00000001
00C	99	10011001	04C	01	00000001	08C	01	00000001	0CC	01	00000001	10C	01	00000001	14C	01	00000001	18C	01	00000001	1CC	02	00000010
00D	99	10011001	04D	01	00000001	08D	81	10110001	0CD	01	00000001	10D	01	00000001	14D	01	00000001	18D	01	00000001	1CD	02	00000010
00E	08	00001000	04E	00	00000000	08E	81	10000001	0CE	01	00000001	10E	41	01000001	14E	01	00000001	18E	01	00000001	1CE	01	00000001
00F	01	00000001	04F	99	10011001	08F	81	10000001	0CF	01	00000001	10F	01	00000001	14F	81	10000001	18F	01	00000001	1CF	01	00000001
010	81	10110001	050	19	00011001	090	81	10000001	0D0	85	10000101	110	01	00000001	150	00	00000000	190	81	10000001	1D0	81	10000001
011	81	10110001	051	19	00011001	091	81	10000001	0D1	01	00000001	111	99	10011001	151	01	00000001	191	03	00000011	1D1	01	00000001
012	81	10000001	052	31	00110001	092	85	10000101	0D2	98	10011000	112	42	01000010	152	01	00000001	192	01	00000001	1D2	03	00000011
013	81	10110001	053	85	10000101	093	C1	11000001	0D3	31	00110001	113	99	10011001	153	01	00000001	193	11	00010001	1D3	01	00000001
014	81	10110001	054	85	10000101	094	01	00000001	0D4	81	10110001	114	41	01000001	154	81	10000001	194	01	00000001	1D4	01	00000001
015	42	01000010	055	01	00000001	095	81	10000001	0D5	01	00000001	115	99	10011001	155	02	00000010	195	01	00000001	1D5	01	00000001
016	02	00000010	056	02	00000010	096	81	10110001	0D6	01	00000001	116	41	01000001	156	01	00000001	196	01	00000001	1D6	01	00000001
017	02	00000010	057	01	00000001	097	C1	11000001	0D7	01	00000001	117	01	00000001	157	01	00000001	197	01	00000001	1D7	01	00000001
018	02	00000010	058	01	00000001	098	81	10000001	0D8	98	10011000	118	01	00000001	158	01	00000001	198	41	01000001	1D8	81	10000001
019	81	10110001	059	19	00011001	099	85	10000101	0D9	01	00000001	119	08	00001000	159	01	00000001	199	49	01001001	1D9	05	00000101
01A	81	10110001	05A	19	00011001	09A	81	10000001	0DA	98	10011000	11A	41	01000001	15A	00	00000000	19A	41	01000001	1DA	81	10000001
01B	02	00000010	05B	09	00001001	09B	81	10000001	0DB	98	10011000	11B	08	00001000	15B	01	00000001	19B	01	00000001	1DB	05	00000101
01C	01	00000001	05C	05	00000101	09C	81	10000001	0DC	19	00011001	11C	01	00000001	15C	01	00000001	19C	41	01000001	1DC	81	10000001
01D	99	10011001	05D	11	00010001	09D	85	10000101	0DD	18	00011000	11D	01	00000001	15D	81	10000001	19D	01	00000001	1DD	85	10000101
01E	98	10011000	05E	31	00110001	09E	81	10000001	0DE	19	00011001	11E	01	00000001	15E	01	00000001	19E	01	00000001	1DE	01	00000001
01F	81	10110001	05F	31	00110001	09F	01	00000001	0DF	00	00000000	11F	01	00000001	15F	81	10000001	19F	81	10000001	1DF	81	10110001
020	01	00000001	060	01	00000001	0A0	02	00000010	0E0	85	10000101	120	01	00000001	160	01	00000001	1A0	01	00000001	1E0	01	00000001
021	02	00000010	061	01	00000001	0A1	85	10000101	0E1	01	00000001	121	99	10011001	161	01	00000001	1A1	01	00000001	1E1	81	10110001
022	01	00000001	062	01	00000001	0A2	02	00000010	0E2	02	00000010	122	01	00000001	162	01	00000001	1A2	01	00000001	1E2	02	00000010
023	01	00000001	063	01	00000001	0A3	01	00000001	0E3	02	00000010	123	99	10011001	163	01	00000001	1A3	01	00000001	1E3	85	10000101
024	01	00000001	064	01	00000001	0A4	01	00000001	0E4	31	00110001	124	42	01000010	164	02	00000010	1A4	01	00000001	1E4	81	10000001
025	00	00000000	065	01	00000001	0A5	81	10110001	0E5	01	00000001	125	99	10011001	165	01	00000001	1A5	01	00000001	1E5	05	00000101
026	01	00000001	066	01	00000001	0A6	98	10011000	0E6	01	00000001	126	01	00000001	166	01	00000001	1A6	01	00000001	1E6	01	00000001
027	99	10011001	067	08	00001000	0A7	31	00110001	0E7	02	00000010	127	81	10110001	167	01	00000001	1A7	02	00000010	1E7	81	10110001
028	85	10000101	068	01	00000001	0A8	01	00000001	0E8	01	00000001	128	01	00000001	168	81	10000001	1A8	41	01000001	1E8	01	00000001
029	85	10000101	069	01	00000001	0A9	02	00000010	0E9	01	00000001	129	C1	11000001	169	81	10000001	1A9	01	00000001	1E9	81	10000001
02A	81	10110001	06A	01	00000001	0AA	01	00000001	0EA	01	00000001	12A	01	00000001	16A	81	10000001	1AA	01	00000001	1EA	02	00000010
02B	01	00000001	06B	01	00000001	0AB	85	10000101	0EB	01	00000001	12B	81	10000001	16B	81	10000001	1AB	01	00000001	1EB	81	10000001
02C	81	10110001	06C	01	00000001	0AC	99	10011001	0EC	01	00000001	12C	01	00000001	16C	02	00000010	1AC	41	01000001	1EC	01	00000001
02D	01	00000001	06D	01	00000001	0AD	02	00000010	0ED	01	00000001	12D	81	10000001	16D	01	00000001	1AD	41	01000001	1ED	81	10000001
02E	81	10110001	06E	C1	11000001	0AE	99	10011001	0EE	01	00000001	12E	41	01000001	16E	01	00000001	1AE	41	01000001	1EE	01	00000001
02F	02	00000010	06F	01	00000001	0AF	81	10110001	0EF	01	00000001	12F	81	10000001	16F	01	00000001	1AF	02	00000010	1EF	81	10000001
030	01	00000001	070	01	00000001	0B0	98	10011000	0F0	03	00000011	130	01	00000001	170	81	10000001	1B0	01	00000001	1F0	01	00000001
031	01	00000001	071	99	10011001	0B1																	

G.M. NUMBER: 11106-1500 (MCTM) DTL, SCALE 2, "D" RELEASE BOX
G.M. NUMBER: 0101106-15000 27-OCT-81 18:30

8			7			6			5			4			3			2			1		
HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT
000	00	00000000	040	F0	11110000	080	90	10010000	0C0	99	10011001	100	80	10110000	140	82	10110010	180	90	10010000	1C0	D0	11010000
001	00	00000000	041	F0	11110000	081	C0	11000000	0C1	90	10010000	101	F0	11110000	141	80	10110000	181	D0	11010000	1C1	D0	11010000
002	00	00000000	042	F0	11110000	082	59	01011001	0C2	99	10011001	102	F0	11110000	142	80	10110000	182	80	10110000	1C2	F0	11110000
003	00	00000000	043	D9	11011001	083	D0	11010000	0C3	80	10110000	103	F0	11110000	143	80	10110000	183	D0	11010000	1C3	F2	11110010
004	00	00000000	044	D0	11010000	084	D0	11010000	0C4	90	10010000	104	F0	11110000	144	D0	11010000	184	F0	11110000	1C4	D0	11010000
005	00	00000000	045	D0	11010000	085	D0	11010000	0C5	F2	11110010	105	F0	11110000	145	80	10110000	185	99	10011001	1C5	F0	11110000
006	00	00000000	046	95	10010101	086	D9	11011001	0C6	80	10110000	106	F0	11110000	146	F0	11110000	186	F0	11110000	1C6	D0	11010000
007	D5	11010101	047	90	10010000	087	D0	11010000	0C7	F0	11110000	107	F0	11110000	147	90	10010000	187	99	10011001	1C7	D9	11011001
008	95	10010101	048	90	10010000	088	D0	11010000	0C8	F0	11110000	108	F0	11110000	148	90	10010000	188	D1	11010001	1C8	D0	11010000
009	D0	11010000	049	99	10011001	089	D0	11010000	0C9	D0	11010000	109	F0	11110000	149	80	10110000	189	D1	11010001	1C9	D0	11010000
00A	D0	11010000	04A	99	10011001	08A	D9	11011001	0CA	F0	11110000	10A	F0	11110000	14A	D1	11010001	18A	D9	11011001	1CA	F0	11110000
00B	D0	11010000	04B	99	10011001	08B	D0	11010000	0CB	F2	11110010	10B	F0	11110000	14B	80	10110000	18B	D1	11010001	1CB	F0	11110000
00C	D5	11010101	04C	91	10010001	08C	D1	11010001	0CC	F0	11110000	10C	F0	11110000	14C	90	10010000	18C	F0	11110000	1CC	80	10110000
00D	D5	11010101	04D	90	10010000	08D	D0	11010000	0CD	F0	11110000	10D	F0	11110000	14D	90	10010000	18D	99	10011001	1CD	80	10110000
00E	D0	11010000	04E	90	10010000	08E	D1	11010001	0CE	D0	11010000	10E	D3	11010011	14E	D0	11010000	18E	D3	11010011	1CE	D0	11010000
00F	D0	11010000	04F	95	10010101	08F	80	10110000	0CF	F0	11110000	10F	F2	11110010	14F	80	10110000	18F	99	10011001	1CF	D9	11011001
010	D0	11010000	050	95	10010101	090	10	00010000	0D0	94	10010100	110	F0	11110000	150	91	10010001	190	80	10110000	1D0	D0	11010000
011	D0	11010000	051	95	10010101	091	D0	11010000	0D1	D0	11010000	111	D4	11010100	151	80	10110000	191	D0	11010000	1D1	F0	11110000
012	D1	11010001	052	D0	11010000	092	D0	11010000	0D2	94	10010100	112	99	10011001	152	99	10011001	192	F0	11110000	1D2	D0	11010000
013	D0	11010000	053	95	10010101	093	D1	11010001	0D3	90	10010000	113	D5	11010101	153	80	10110000	193	F0	11110000	1D3	F2	11110010
014	D0	11010000	054	95	10010101	094	D0	11010000	0D4	90	10010000	114	F0	11110000	154	90	10010000	194	F0	11110000	1D4	D0	11010000
015	D9	11011001	055	D0	11010000	095	D0	11010000	0D5	95	10010101	115	90	10010000	155	80	10110000	195	F0	11110000	1D5	F0	11110000
016	59	01011001	056	D9	11011001	096	D0	11010000	0D6	D0	11010000	116	D2	11010010	156	F0	11110000	196	D3	11010011	1D6	D2	11010010
017	D9	11011001	057	F0	11110000	097	D1	11010001	0D7	95	10010101	117	F0	11110000	157	80	10110000	197	80	10110000	1D7	F0	11110000
018	59	01011001	058	D5	11010101	098	90	10010000	0D8	95	10010101	118	F0	11110000	158	91	10010001	198	F0	11110000	1D8	80	10110000
019	D0	11010000	059	F0	11110000	099	D0	11010000	0D9	90	10010000	119	90	10010000	159	90	10010000	199	F0	11110000	1D9	D0	11010000
01A	D0	11010000	05A	F0	11110000	09A	D0	11010000	0DA	95	10010101	11A	90	10010000	15A	93	10010011	19A	F0	11110000	1DA	90	10010000
01B	59	01011001	05B	F0	11110000	09B	10	00010000	0DB	94	10010100	11B	80	10110000	15B	90	10010000	19B	F0	11110000	1DB	D0	11010000
01C	95	10010101	05C	F0	11110000	09C	90	10010000	0DC	95	10010101	11C	F0	11110000	15C	90	10010000	19C	F0	11110000	1DC	D0	11010000
01D	95	10010101	05D	F0	11110000	09D	D0	11010000	0DD	94	10010100	11D	D0	11010000	15D	40	01000000	19D	F0	11110000	1DD	D0	11010000
01E	95	10010101	05E	F0	11110000	09E	80	10110000	0DE	95	10010101	11E	F0	11110000	15E	F0	11110000	19E	D3	11010011	1DE	D0	11010000
01F	90	10010000	05F	F0	11110000	09F	D0	11010000	0DF	80	10110000	11F	D0	11010000	15F	70	01110000	19F	80	10110000	1DF	D0	11010000
020	90	10010000	060	F2	11110010	0A0	D9	11011001	0E0	94	10010100	120	F0	11110000	160	D1	11010001	1A0	F0	11110000	1E0	80	10110000
021	99	10011001	061	F0	11110000	0A1	94	10010100	0E1	10	00010000	121	D4	11010100									

G.M. WARNER, 11106-1500 JOLIC12, P.L., SCALE 2, "0" RELEASE BOX
G.M. WARNER GLC12, P.L. (1106-1500) 27-OCT-81 18131

8			7			6			5			4			3			2			1		
HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT
000	00	00000000	040	E8	11101011	080	E9	11101001	0C0	E9	11101001	100	E9	11101001	140	E8	11101011	180	E8	11101011	1C0	E9	11101001
001	00	00000000	041	ED	11101101	081	E9	11101001	0C1	E9	11101001	101	E9	11101001	141	E9	11101001	181	E9	11101001	1C1	E9	11101001
002	00	00000000	042	6D	01101101	082	E9	11101001	0C2	E9	11101001	102	EC	11101100	142	E9	11101001	182	E8	11101011	1C2	E9	11101001
003	00	00000000	043	6D	01101101	083	E9	11101001	0C3	E9	11101001	103	E9	11101001	143	E9	11101001	183	E9	11101001	1C3	E9	11101001
004	00	00000000	044	E9	11101001	084	E9	11101001	0C4	E9	11101001	104	E8	11101011	144	F9	11111001	184	E9	11101001	1C4	E1	11100001
005	00	00000000	045	E9	11101001	085	E9	11101001	0C5	E8	11101011	105	E9	11101001	145	E9	11101001	185	E9	11101001	1C5	E1	11100001
006	00	00000000	046	E9	11101001	086	EF	11101111	0C6	E9	11101001	106	E9	11101001	146	E9	11101001	186	E8	11101011	1C6	E8	11101011
007	E9	11101001	047	E8	11101011	087	E9	11101001	0C7	E9	11101001	107	E9	11101001	147	E9	11101001	187	E9	11101001	1C7	EF	11101111
008	E9	11101001	048	E8	11101011	088	E9	11101001	0C8	E8	11101011	108	E9	11101001	148	E9	11101001	188	E9	11101001	1C8	E9	11101001
009	E9	11101001	049	E8	11101011	089	D9	11011001	0C9	E9	11101001	109	E9	11101001	149	E9	11101001	189	E9	11101001	1C9	E9	11101001
00A	ED	11101101	04A	E8	11101011	08A	E9	11101001	0CA	E9	11101001	10A	E9	11101001	14A	E9	11101001	18A	E9	11101001	1CA	E9	11101001
00B	E9	11101001	04B	E8	11101011	08B	E9	11101001	0CB	E8	11101011	10B	E9	11101001	14B	E9	11101001	18B	E9	11101001	1CB	E9	11101001
00C	E9	11101001	04C	E9	11101001	08C	ED	11101101	0CC	E8	11101011	10C	E9	11101001	14C	E9	11101001	18C	E9	11101001	1CC	E1	11100001
00D	E9	11101001	04D	E9	11101001	08D	E9	11101001	0CD	E9	11101001	10D	E9	11101001	14D	E9	11101001	18D	E9	11101001	1CD	E1	11100001
00E	E9	11101001	04E	E9	11101001	08E	ED	11101101	0CE	E9	11101001	10E	E9	11101001	14E	E8	11101011	18E	E9	11101001	1CE	E8	11101011
00F	ED	11101101	04F	E9	11101001	08F	E9	11101001	0CF	E9	11101001	10F	E8	11101011	14F	E9	11101001	18F	E9	11101001	1CF	E9	11101001
010	E9	11101001	050	E9	11101001	090	E9	11101001	0D0	E9	11101001	110	E9	11101001	150	ED	11101101	190	E9	11101001	1D0	E9	11101001
011	E9	11101001	051	E9	11101001	091	E9	11101001	0D1	E9	11101001	111	E9	11101001	151	E9	11101001	191	E1	11100001	1D1	E8	11101011
012	E9	11101001	052	E8	11101011	092	D9	11011001	0D2	E9	11101001	112	E8	11101011	152	ED	11101101	192	E9	11101001	1D2	E9	11101001
013	E9	11101001	053	E9	11101001	093	E9	11101001	0D3	E8	11101011	113	E9	11101001	153	E9	11101001	193	C9	11001001	1D3	E8	11101011
014	E9	11101001	054	E9	11101001	094	E9	11101001	0D4	E8	11101011	114	E9	11101001	154	E9	11101001	194	E9	11101001	1D4	E9	11101001
015	E9	11101001	055	E9	11101001	095	E9	11101001	0D5	E9	11101001	115	E9	11101001	155	E9	11101001	195	E9	11101001	1D5	E9	11101001
016	E9	11101001	056	ED	11101101	096	E9	11101001	0D6	E9	11101001	116	E9	11101001	156	E8	11101011	196	69	01101001	1D6	E9	11101001
017	E9	11101001	057	69	01101001	097	E9	11101001	0D7	E9	11101001	117	E9	11101001	157	E9	11101001	197	E9	11101001	1D7	ED	11101101
018	E9	11101001	058	E1	11100001	098	E9	11101001	0D8	F9	11111001	118	E9	11101001	158	E9	11101001	198	E9	11101001	1D8	E9	11101001
019	E9	11101001	059	F9	11111001	099	E9	11101001	0D9	E8	11101011	119	E9	11101001	159	E9	11101001	199	E9	11101001	1D9	C9	11001001
01A	E9	11101001	05A	E9	11101001	09A	E9	11101001	0DA	E9	11101001	11A	E9	11101001	15A	E9	11101001	19A	E9	11101001	1DA	E9	11101001
01B	E9	11101001	05B	E9	11101001	09B	E9	11101001	0DB	E8	11101011	11B	E9	11101001	15B	E9	11101001	19B	E9	11101001	1DB	C9	11001001
01C	E9	11101001	05C	E9	11101001	09C	E9	11101001	0DC	F9	11111001	11C	E9	11101001	15C	E9	11101001	19C	E9	11101001	1DC	E9	11101001
01D	E9	11101001	05D	E9	11101001	09D	E9	11101001	0DD	E9	11101001	11D	E9	11101001	15D	E9	11101001	19D	E8	11101011	1DD	C9	11001001
01E	E9	11101001	05E	E9	11101001	09E	E9	11101001	0DE	E9	11101001	11E	E9	11101001	15E	E9	11101001	19E	E9	11101001	1DE	E9	11101001
01F	E8	11101011	05F	F9	11111001	09F	E9	11101001	0DF	E8	11101011	11F	E9	11101001	15F	E9	11101001	19F	E9	11101001	1DF	E9	11101001
020	E8	11101011	060	EA	11101010	0A0	ED	11101101	0E0	E9	11101001	120	E9	11101001	160	E9	11101001	1A0	E9	11101001	1E0	E9	11101001
021	E8	11101011	061	E9	11101001	0A1	E9	11101001															

G.M. WARNER, (1106, 1500) 2013, 01, SCALE 2, "D" RELEASE BOX
G.M. WARNER (01013, 01013, 1106, 1500) 27-OCT-81 10131

8			7			6			5			4			3			2			1		
HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT
000	00	00000000	040	0A	00001010	080	82	10000010	0C0	08	00001000	100	86	10000110	140	08	00001000	180	86	10000110	1C0	02	00000010
001	00	00000000	041	08	00001011	081	08	00001000	0C1	8A	10001010	101	0A	00001010	141	0A	00001010	181	8A	10001010	1C1	02	00000010
002	00	00000000	042	08	00001011	082	08	00001000	0C2	48	01001000	102	83	10000011	142	08	00001000	182	82	10000010	1C2	0A	00001010
003	00	00000000	043	08	00001011	083	08	00001000	0C3	0A	00001010	103	0A	00001010	143	8A	10001010	183	8A	10001010	1C3	0A	00001010
004	00	00000000	044	8A	10001010	084	0C	00001100	0C4	8A	10001010	104	0A	00001010	144	08	00001000	184	7A	01111010	1C4	02	00000010
005	00	00000000	045	8A	10001010	085	08	00001000	0C5	0A	00001010	105	0A	00001010	145	0A	00001010	185	5A	01011010	1C5	02	00000010
006	00	00000000	046	0A	00001010	086	39	00111001	0C6	0A	00001010	106	0A	00001010	146	8A	10001010	186	8E	10001110	1C6	0A	00001010
007	AA	10101010	047	0A	00001010	087	0A	00001010	0C7	08	00001000	107	0A	00001010	147	0A	00001010	187	5A	01011010	1C7	39	00111001
008	8A	10001010	048	0A	00001010	088	8A	10001010	0C8	82	10000010	108	0A	00001010	148	0A	00001010	188	0A	00001010	1C8	02	00000010
009	82	10000010	049	0A	00001010	089	08	00001000	0C9	0A	00001010	109	0A	00001010	149	8A	10001010	189	0A	00001010	1C9	02	00000010
00A	8B	10001011	04A	0A	00001010	08A	08	00001000	0CA	82	10000010	10A	0A	00001010	14A	08	00001000	18A	0E	00001110	1CA	0A	00001010
00B	8A	10001010	04B	0A	00001010	08B	08	00001000	0CB	8E	10001110	10B	0A	00001010	14B	08	00001000	18B	0A	00001010	1CB	0A	00001010
00C	AA	10101010	04C	0A	00001010	08C	09	00001001	0CC	8A	10001010	10C	0A	00001010	14C	0E	00001110	18C	0A	00001010	1CC	E2	11100010
00D	8A	10001010	04D	02	00000010	08D	08	00001000	0CD	8A	10001010	10D	0A	00001010	14D	0E	00001110	18D	5A	01011010	1CD	E2	11100010
00E	82	10000010	04E	02	00000010	08E	0D	00001101	0CE	0A	00001010	10E	8A	10001010	14E	0A	00001010	18E	0A	00001010	1CE	0A	00001010
00F	8B	10001011	04F	0A	00001010	08F	08	00001000	0CF	0A	00001010	10F	0A	00001010	14F	08	10001000	18F	5A	01011010	1CF	0A	00001010
010	08	00001000	050	02	00000010	090	08	00001000	0D0	0A	00001010	110	0A	00001010	150	22	00100010	190	08	00001000	1D0	08	00001000
011	08	00001000	051	02	00000010	091	08	00001000	0D1	0A	00001010	111	8A	10001010	151	8A	10001010	191	0A	00001010	1D1	0A	00001010
012	08	00001000	052	8A	10001010	092	08	00001000	0D2	0A	00001010	112	0A	00001010	152	0A	00001010	192	08	00001000	1D2	0A	00001010
013	08	00001000	053	0A	00001010	093	08	00001000	0D3	0A	00001010	113	8A	10001010	153	8A	10001010	193	08	00001000	1D3	0A	00001010
014	08	00001000	054	0A	00001010	094	0A	00001010	0D4	0A	00001010	114	0A	00001010	154	08	00001000	194	7A	01111010	1D4	0A	00001010
015	08	00001000	055	0A	00001010	095	08	00001000	0D5	0A	00001010	115	8A	10001010	155	B2	10000010	195	7A	01111010	1D5	0A	00001010
016	08	00001000	056	08	00001010	096	08	00001000	0D6	0A	00001010	116	0A	00001010	156	8A	10001010	196	0A	00001010	1D6	0A	00001010
017	08	00001000	057	0A	00001010	097	08	00001000	0D7	0A	00001010	117	0A	00001010	157	B2	10000010	197	8A	10001010	1D7	08	00001011
018	08	00001000	058	02	00000010	098	08	00001000	0D8	0A	00001010	118	0A	00001010	158	0E	00001110	198	0A	00001010	1D8	08	00001000
019	08	00001000	059	0A	00001010	099	08	00001000	0D9	0A	00001010	119	B2	10000010	159	0A	00001010	199	0A	00001010	1D9	08	00001000
01A	08	00001000	05A	0A	00001010	09A	08	00001000	0DA	0A	00001010	11A	0A	00001010	15A	06	00000110	19A	0A	00001010	1DA	08	00001000
01B	08	00001000	05B	0A	00001010	09B	08	00001000	0DB	0A	00001010	11B	B2	10000010	15B	0A	00001010	19B	08	00001000	1DB	08	00001000
01C	0A	00001010	05C	0A	00001010	09C	08	00001000	0DC	02	00000010	11C	0A	00001010	15C	0A	00001010	19C	7E	01111110	1DC	08	00001000
01D	0A	00001010	05D	0A	00001010	09D	08	00001000	0DD	86	10000110	11D	0A	00001010	15D	08	00001000	19D	0A	00001010	1DD	08	00001000
01E	0A	00001010	05E	0A	00001010	09E	08	00001000	0DE	02	00000010	11E	8A	10001010	15E	0A	00001010	19E	8A	10001010	1DE	8A	10001010
01F	0A	00001010	05F	0A	00001010	09F	0A	00001010	0DF	82	10000010	11F	0A	00001010	15F	08	00001000	19F	68	01101000	1DF	08	00001000
020	0A	00001010	060	82	10000010	0A0	09	00001001	0E0	0A	00001010	120	0A	00001010	160	0A	00001010	1A0	0A	00001010	1E0	8A	10001010
021	0A	00001010	061	0A	00001010	0A1	0A	00001010	0E1	8A	10001010	121	8A	10001010	161	0A	00001010	1A1	0A	00001010	1E1	08	00001000
022	0A	00001010	062	0A	00001010	0A2	49	01001001	0E2	82	10000010	122	0A	00001010	162	08	00001000	1A2	0A	00001010	1E2	08	00001000
023	0A	00001010	063	0A	00001010	0A3	0A	00001010	0E3	8A	10001010	123	8A	10001010	163	0A	00001010	1A3	0A	00001010	1E3	08	00001000
024	02	00000010	064	0A	00001010	0A4	0A	00001010	0E4	8A	10001010	124	0A	00001010	164	58	01011000	1A4	7A	01111010	1E4	08	00001000
025	02	00000010	065	0A	00001010	0A5	0A	00001010	0E5	0A	00001010	125	8A	10001010	165	8A	10001010	1A5	7A	01111010	1E5	08	00001000
026	0E	00001110	066	0A	00001010	0A6	0A	00001010	0E6	0A	00001010	126	0A	00001010	166	0A	00001010	1A6	0A	00001010	1E6	8A	10001010
027	0A	00001010	067	B2	10000010	0A7	0A	00001010	0E7	8A	10001010	127	08	00001000	167	0A	00001010	1A7	08	00001000	1E7	08	00001000
028	0A	00001010	068	0A	00001010	0A8	0A	00001010	0E8	8A	10001010	128	0A	00001010	168	08	00001000	1A8	0E	00001110	1E8	8A	10001010
029	0A	00001010	069	0A	00001010	0A9	5A	01011010	0E9	8B	10001011	129	08	00001000	169	08	00001000	1A9	0A	00001010	1E9	08	00001000
02A	0A	00001010	06A	0A	00001010	0AA	0A	00001010	0EA	0A	00001010	12A	0A	00001010	16A	08	00001000	1AA	0A	00001010	1EA	38	00111000
02B	0A	00001010	06B	0A	00001010	0AB	0A	00001010	0EB	8A	10001010	12B	08	00001000	16B	08	00001000	1AB	0A	00001010	1EB	08	00001000
02C	08	00001000	06C	0A	00001010	0AC	0A	00001010	0EC	8A	10001010	12C	0A	00001010	16C	58	01011000	1AC	FF	11111111	1EC	0A	00001010
02D	0A	00001010	06D	0A	00001010	0AD	0A	00001010	0ED	02	00000010	12D	08	00001000	16D	0A	00001010	1AD	0E	00001110	1ED	08	00001000
02E	08	00001000	06E	08	00001000	0AE	0A	00001010	0EE	0A	00001010	12E	8A	10001010	16E	0E	00001110	1AE	8A	10001010	1EE	0A	00001010
02F	58	01011000	06F	8A	10001010	0AF	0A	00001010	0EF	02	00000010	12F	08	00001000	16F	28	00101000	1AF	38	00111000	1EF	08	00001000
030	0A	00001010	070	0A	00001010	0B0	0A	00001010	0F0	0A	00001010	130	8A	10001010	170	08	00001000	1B0	8A	10001010	1F0	0A	00001010
031	08	00001011	071	8A	10001010	0B1	0A	00001010	0F1	0A	00001010	131	09	00001001	171	08	00001000	1B1	08	00001000	1F1	0A	00001010
032	0A	00001010	072	8A	10001010	0B2	0A	00001010	0F2	0A	00001010	132	0A	00001010	172	08	00001000	1B2	08	00001000	1F2	48	01001000
033	08	00001011	073	8A	10001010	0B3	0A	00001010	0F3	08	00001000	133	0D	00001101	173	08	00001000	1B3	0A	00001010	1F3	0A	00001010

8			7			6			5			4			3			2			1		
HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT
000	00	00000000	040	E3	11100011	080	62	01100010	0C0	62	01100010	100	62	01100010	140	91	10010001	180	62	01100010	1C0	62	01100010
001	00	00000000	041	E2	11100010	081	E2	11100010	0C1	E6	11100110	101	E2	11100010	141	E2	11100010	181	E2	11100010	1C1	62	01100010
002	00	00000000	042	E2	11100010	082	62	01100010	0C2	62	01100010	102	62	01100010	142	90	10010000	182	62	01100010	1C2	E2	11100010
003	00	00000000	043	62	01100010	083	E2	11100010	0C3	A2	10100010	103	E2	11100010	143	E6	11100110	183	E2	11100010	1C3	E2	11100010
004	00	00000000	044	E2	11100010	084	E2	11100010	0C4	E6	11100110	104	EA	11101010	144	62	01100010	184	E2	11100010	1C4	62	01100010
005	00	00000000	045	E2	11100010	085	E2	11100010	0C5	E3	11100011	105	E2	11100010	145	E2	11100010	185	E2	11100010	1C5	62	01100010
006	00	00000000	046	E2	11100010	086	63	01100011	0C6	A2	10100010	106	E2	11100010	146	E2	11100010	186	FA	11111010	1C6	E3	11100011
007	E2	11100010	047	E2	11100010	087	E2	11100010	0C7	E2	11100010	107	E2	11100010	147	E2	11100010	187	E2	11100010	1C7	63	01100011
008	EA	11101010	048	E2	11100010	088	E2	11100010	0C8	63	01100011	108	E2	11100010	148	E2	11100010	188	E2	11100010	1C8	62	01100010
009	62	01100010	049	62	01100010	089	E2	11100010	0C9	E2	11100010	109	E6	11100110	149	E6	11100110	189	E2	11100010	1C9	62	01100010
00A	E2	11100010	04A	62	01100010	08A	62	01100010	0CA	62	01100010	10A	E2	11100010	14A	E2	11100010	18A	EA	11101010	1CA	E2	11100010
00B	E2	11100010	04B	E2	11100010	08B	E2	11100010	0CB	E6	11101011	10B	E2	11100010	14B	92	10010010	18B	E2	11100010	1CB	E2	11100010
00C	E2	11100010	04C	E2	11100010	08C	E2	11100010	0CC	E2	11100010	10C	E2	11100010	14C	E6	11100110	18C	EA	11101010	1CC	62	01100010
00D	E2	11100010	04D	E2	11100010	08D	62	01100010	0CD	E2	11100010	10D	E2	11100010	14D	E2	11100010	18D	E2	11100010	1CD	62	01100010
00E	62	01100010	04E	62	01100010	08E	E2	11100010	0CE	E2	11100010	10E	E2	11100010	14E	E3	11100011	18E	EA	11101010	1CE	E3	11100011
00F	E2	11100010	04F	E2	11100010	08F	E2	11100010	0CF	E2	11100010	10F	E3	11100011	14F	96	10010110	18F	E2	11100010	1CF	E2	11100010
010	E2	11100010	050	E2	11100010	090	E2	11100010	0D0	62	01100010	110	E2	11100010	150	62	01100010	190	E2	11100010	1D0	E2	11100010
011	62	01100010	051	E2	11100010	091	E2	11100010	0D1	E2	11100010	111	E2	11100010	151	E6	11100110	191	E2	11100010	1D1	EB	11101011
012	E2	11100010	052	E2	11100010	092	E2	11100010	0D2	E2	11100010	112	62	01100010	152	E2	11100010	192	E2	11100010	1D2	E2	11100010
013	E2	11100010	053	E2	11100010	093	E2	11100010	0D3	E2	11100010	113	E2	11100010	153	E6	11100110	193	E2	11100010	1D3	E3	11100011
014	62	01100010	054	E2	11100010	094	E2	11100010	0D4	62	01100010	114	E6	11100110	154	E2	11100010	194	E2	11100010	1D4	EA	11101010
015	62	01100010	055	E2	11100010	095	E2	11100010	0D5	E2	11100010	115	E2	11100010	155	72	01110010	195	E2	11100010	1D5	E2	11100010
016	62	01100010	056	62	01100010	096	62	01100010	0D6	E2	11100010	116	E2	11100010	156	E3	11100011	196	E2	11100010	1D6	E2	11100010
017	62	01100010	057	E2	11100010	097	E2	11100010	0D7	E2	11100010	117	E2	11100010	157	F2	11110010	197	E6	11100110	1D7	E2	11100010
018	62	01100010	058	E2	11100010	098	E2	11100010	0D8	E6	11100110	118	E6	11100110	158	E2	11100010	198	E2	11100010	1D8	E2	11100010
019	E2	11100010	059	E2	11100010	099	E2	11100010	0D9	E2	11100010	119	62	01100010	159	E2	11100010	199	E2	11100010	1D9	E2	11100010
01A	62	01100010	05A	E2	11100010	09A	E2	11100010	0DA	E2	11100010	11A	E2	11100010	15A	62	01100010	19A	E2	11100010	1DA	E2	11100010
01B	62	01100010	05B	E2	11100010	09B	E2	11100010	0DB	E2	11100010	11B	62	01100010	15B	E2	11100010	19B	E2	11100010	1DB	E2	11100010
01C	E2	11100010	05C	E2	11100010	09C	E2	11100010	0DC	E2	11100010	11C	E2	11100010	15C	E2	11100010	19C	E2	11100010	1DC	E2	11100010
01D	E2	11100010	05D	E2	11100010	09D	E2	11100010	0DD	E2	11100010	11D	E2	11100010	15D	E2	11100010	19D	EA	11101010	1DD	E2	11100010
01E	E2	11100010	05E	E2	11100010	09E	E2	11100010	0DE	E2	11100010	11E	E2	11100010	15E	A2	10100010	19E	E2	11100010	1DE	E2	11100010
01F	E2	11100010	05F	62	01100010	09F	E2	11100010	0DF	62	01100010	11F	E2	11100010	15F	E2	11100010	19F	E2	11100010	1DF	E2	11100010
020	E2	11100010	060	E3	11100011	0A0	62	01100010	0E0	62	01100010	120	E2	11100010	160	E2	11100010	1A0	E2	11100010	1E0	E6	11100110
021	62	01100010	061	E2	11100010	0A1	62	01100010	0E1	E2	11100010	121	E2	11100010	161	E2	11100010	1A1	E2	11100010	1E1	62	01100010
022	E2	11100010	062	E2	11100010	0A2	62	01100010	0E2	62	01100010	122	E2	11100010	162	E2	11100010	1A2	E2	11100010	1E2	62	01100010
023	E2	11100010	063	E2	11100010	0A3	E2	11100010	0E3	62	01100010	123	E2	11100010	163	E2	11100010	1A3	E2	11100010	1E3	E2	11100010
024	E2	11100010	064	E6	11100110	0A4	E2	11100010	0E4	62	01100010	124	E2	11100010	164	62	01100010	1A4	E2	11100010	1E4	E2	11100010
025	62	01100010	065	E2	11100010	0A5	62	01100010	0E5	E2	11100010	125	E2	11100010	165	E6	11100110	1A5	E2	11100010	1E5	E2	11100010
026	E2	11100010	066	E2	11100010	0A6	62	01100010	0E6	E2	11100010	126	E2	11100010	166	C2	11000010	1A6	E2	11100010	1E6	E2	11100010
027	E2	11100010	067	62	01100010	0A7	E2	11100010	0E7	62	01100010	127	E2	11100010	167	E2	11100010	1A7	63	01100011	1E7	62	01100010
028	E2	11100010	068	E2	11100010	0A8	E2	11100010	0E8	E6	11100110	128	E2	11100010	168	E2	11100010	1A8	E6	11100110	1E8	E2	11100010
029	E2	11100010	069	E2	11100010	0A9	62	01100010	0E9	E2	11100010	129	E2	11100010	169	E2	11100010	1A9	A2	10100010	1E9	E2	11100010
02A	E2	11100010	06A	E2	11100010	0AA	E2	11100010	0EA	E2	11100010	12A	E2	11100010	16A	E2	11100010	1AA	E2	11100010	1EA	62	01100010
02B	62	01100010	06B	A2	10100010	0AB	62	01100010	0EB	E2	11100010	12B	E2	11100010	16B	E2	11100010	1AB	E2	11100010	1EB	E2	11100010
02C	E2	11100010	06C	E2	11100010	0AC	E2	11100010	0EC	E6	11100110	12C	E2	11100010	16C	62	01100010	1AC	E2	11100010	1EC	E2	11100010
02D	E2	11100010	06D	82	10000010	0AD	62	01100010	0ED	E2	11100010	12D	E2	11100010	16D	E2	11100010	1AD	E2	11100010	1ED	EA	11101010
02E	E2	11100010	06E	92	10010010	0AE	E2	11100010	0EE	E2	11100010	12E	E2	11100010	16E	C2	11000010	1AE	E2	11100010	1EE	E2	11100010
02F	62	01100010	06F	E2	11100010	0AF	62	01100010	0EF	E2	11100010	12F	E2	11100010	16F	E2	11100010	1AF	63	01100011	1EF	E2	11100010
030	E2	11100010	070	F3	11110011	0B0	E2	11100010	0F0	E2	11100010	130	E6	11100110	170	E2	11100010	1B0	E6	11100110	1F0	E2	11100010
031	E2	11100010	071	E2	11100010	0B1	E2	11100010	0F1	E2	11100010	131	E2	11100010	171	E2	11100010	1B1	E2	11100010	1F1	E2	11100010
032	A2	10100010	072	E2	11100010	0B2	E2	11100010	0F2	E2	11100010	132	E2	11100010	172	E2	11100010	1B2	E2	11100010	1F2	E2	11100010
033	E2	11100010	073	E2	11100010	0B3	E2	11100010	0F3	E2	11100010	133	E2	11100010	173	E2	11100010	1B3	E2	11100010	1F3	E2	11100010
034	E2	11100010	074	F2	11110010	0B4	E2	11100010	0F4	E2	11100010	134	E2	11100010	174	62	01100010	1B4	62	01100010	1F4	62	01100010
035	A2	10100010	075	E2	11100010	0B5	62	01100010	0F5	E2	11100010	135	E2	11100010	175	E2	111						

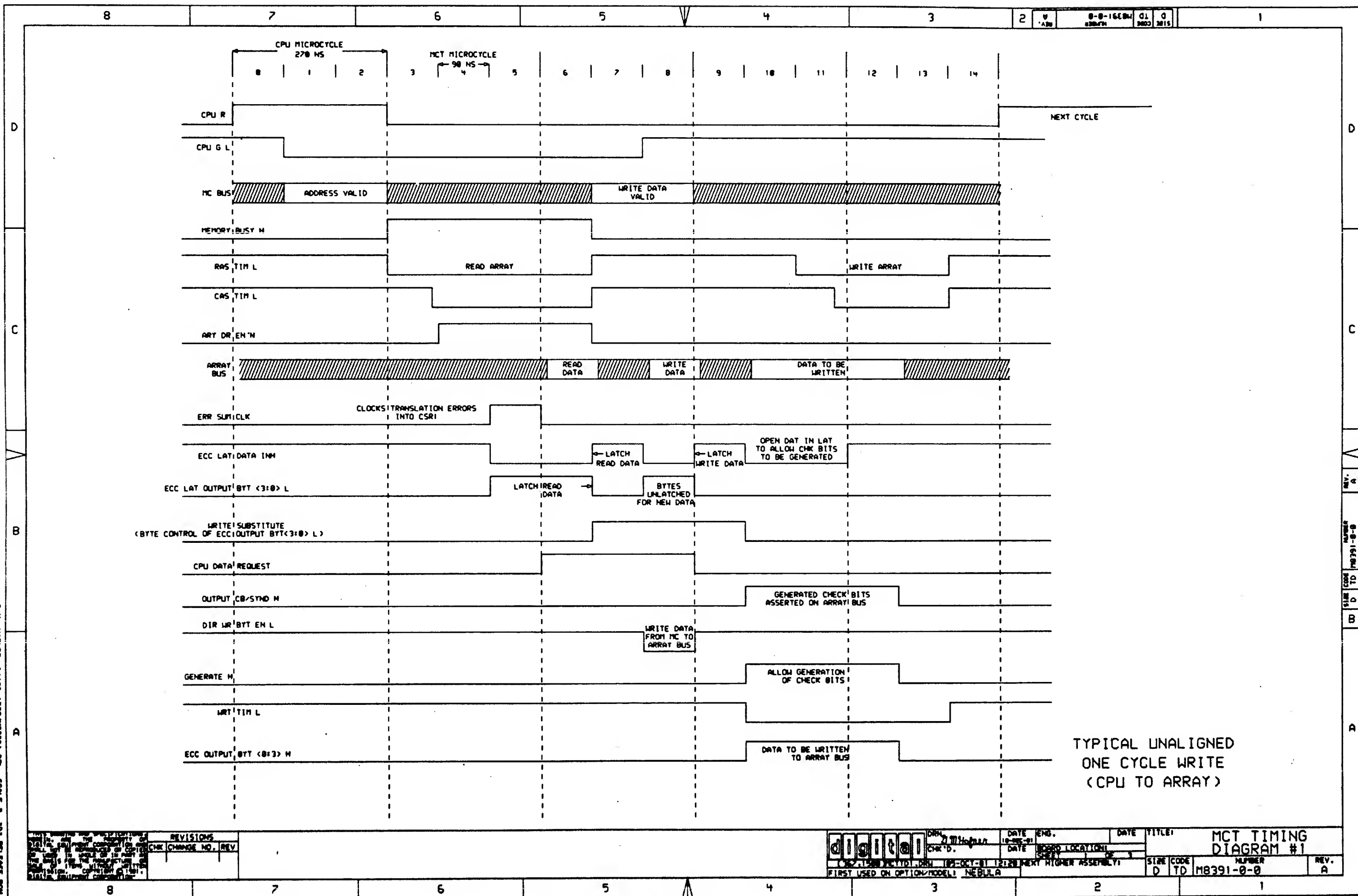
8			7			6			5			4			3			2			1		
HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT	HEX LOC	HEX DAT	BIN DAT
000	E	1110	040	6	0110	080	6	0110	0C0	E	1110	100	6	0110	140	E	1110	180	E	1110	1C0	6	0110
001	E	1110	041	6	0110	081	6	0110	0C1	E	1110	101	6	0110	141	E	1110	181	E	1110	1C1	6	0110
002	E	1110	042	6	0110	082	6	0110	0C2	E	1110	102	6	0110	142	E	1110	182	E	1110	1C2	6	0110
003	E	1110	043	6	0110	083	6	0110	0C3	E	1110	103	6	0110	143	E	1110	183	E	1110	1C3	6	0110
004	A	1010	044	6	0110	084	6	0110	0C4	E	1110	104	2	0010	144	E	1110	184	E	1110	1C4	6	0110
005	A	1010	045	6	0110	085	2	0010	0C5	A	1010	105	2	0010	145	A	1010	185	A	1010	1C5	2	0010
006	A	1010	046	6	0110	086	2	0010	0C6	E	1110	106	2	0010	146	E	1110	186	A	1010	1C6	6	0110
007	A	1010	047	6	0110	087	2	0010	0C7	A	1010	107	2	0010	147	A	1010	187	A	1010	1C7	2	0010
008	A	1010	048	4	0100	088	4	0100	0C8	C	1100	108	2	0010	148	C	1100	188	A	1010	1C8	2	0010
009	A	1010	049	4	0100	089	2	0010	0C9	A	1010	109	2	0010	149	A	1010	189	A	1010	1C9	2	0010
00A	A	1010	04A	4	0100	08A	2	0010	0CA	A	1010	10A	2	0010	14A	C	1100	18A	A	1010	1CA	2	0010
00B	A	1010	04B	4	0100	08B	2	0010	0CB	A	1010	10B	2	0010	14B	A	1010	18B	A	1010	1CB	2	0010
00C	E	1110	04C	6	0110	08C	6	0110	0CC	E	1110	10C	6	0110	14C	E	1110	18C	E	1110	1CC	6	0110
00D	E	1110	04D	6	0110	08D	6	0110	0CD	E	1110	10D	6	0110	14D	E	1110	18D	E	1110	1CD	6	0110
00E	E	1110	04E	6	0110	08E	6	0110	0CE	E	1110	10E	6	0110	14E	E	1110	18E	E	1110	1CE	6	0110
00F	E	1110	04F	6	0110	08F	6	0110	0CF	E	1110	10F	6	0110	14F	E	1110	18F	E	1110	1CF	6	0110
010	6	0110	050	E	1110	090	E	1110	0D0	6	0110	110	E	1110	150	6	0110	190	6	0110	1D0	E	1110
011	6	0110	051	E	1110	091	E	1110	0D1	6	0110	111	E	1110	151	6	0110	191	6	0110	1D1	E	1110
012	6	0110	052	E	1110	092	E	1110	0D2	6	0110	112	E	1110	152	6	0110	192	6	0110	1D2	E	1110
013	6	0110	053	E	1110	093	E	1110	0D3	6	0110	113	E	1110	153	6	0110	193	6	0110	1D3	E	1110
014	2	0010	054	E	1110	094	E	1110	0D4	6	0110	114	A	1010	154	6	0110	194	6	0110	1D4	E	1110
015	2	0010	055	E	1110	095	2	0010	0D5	2	0010	115	A	1010	155	2	0010	195	2	0010	1D5	A	1010
016	2	0010	056	E	1110	096	A	1010	0D6	6	0110	116	A	1010	156	6	0110	196	2	0010	1D6	E	1110
017	2	0010	057	E	1110	097	A	1010	0D7	2	0010	117	A	1010	157	2	0010	197	2	0010	1D7	A	1010
018	2	0010	058	E	1110	098	E	1110	0D8	6	0110	118	A	1010	158	6	0110	198	2	0010	1D8	A	1010
019	2	0010	059	E	1110	099	2	0010	0D9	2	0010	119	A	1010	159	2	0010	199	2	0010	1D9	A	1010
01A	2	0010	05A	E	1110	09A	A	1010	0DA	2	0010	11A	A	1010	15A	6	0110	19A	2	0010	1DA	A	1010
01B	2	0010	05B	E	1110	09B	A	1010	0DB	2	0010	11B	A	1010	15B	2	0010	19B	2	0010	1DB	A	1010
01C	6	0110	05C	E	1110	09C	E	1110	0DC	6	0110	11C	E	1110	15C	6	0110	19C	6	0110	1DC	E	1110
01D	6	0110	05D	E	1110	09D	E	1110	0DD	6	0110	11D	E	1110	15D	6	0110	19D	6	0110	1DD	E	1110
01E	6	0110	05E	E	1110	09E	E	1110	0DE	6	0110	11E	E	1110	15E	6	0110	19E	6	0110	1DE	E	1110
01F	6	0110	05F	E	1110	09F	E	1110	0DF	6	0110	11F	E	1110	15F	6	0110	19F	6	0110	1DF	E	1110
020	6	0110	060	E	1110	0A0	E	1110	0E0	6	0110	120	E	1110	160	6	0110	1A0	6	0110	1E0	E	1110
021	6	0110	061	E	1110	0A1	E	1110	0E1	6	0110	121	E	1110	161	6	0110	1A1	6	0110	1E1	E	1110
022	6	0110	062	E	1110	0A2	E	1110	0E2	6	0110	122	E	1110	162	6	0110	1A2	6	0110	1E2	E	1110
023	6	0110	063	E	1110	0A3	E	1110	0E3	6	0110	123	E	1110	163	6	0110	1A3	6	0110	1E3	E	1110
024	6	0110	064	E	1110	0A4	E	1110	0E4	6	0110	124	E	1110	164	6	0110	1A4	6	0110	1E4	E	1110
025	6	0110	065	E	1110	0A5	E	1110	0E5	6	0110	125	E	1110	165	6	0110	1A5	6	0110	1E5	E	1110
026	6	0110	066	E	1110	0A6	E	1110	0E6	6	0110	126	E	1110	166	6	0110	1A6	6	0110	1E6	E	1110
027	2	0010	067	E	1110	0A7	A	1010	0E7	6	0110	127	A	1010	167	6	0110	1A7	2	0010	1E7	E	1110
028	4	0100	068	C	1100	0A8	C	1100	0E8	4	0100	128	C	1100	168	4	0100	1A8	2	0010	1E8	A	1010
029	4	0100	069	C	1100	0A9	A	1010	0E9	2	0010	129	A	1010	169	2	0010	1A9	2	0010	1E9	A	1010
02A	4	0100	06A	C	1100	0AA	A	1010	0EA	2	0010	12A	C	1100	16A	4	0100	1AA	2	0010	1EA	A	1010
02B	2	0010	06B	A	1010	0AB	A	1010	0EB	2	0010	12B	A	1010	16B	2	0010	1AB	2	0010	1EB	A	1010
02C	6	0110	06C	E	1110	0AC	E	1110	0EC	6	0110	12C	E	1110	16C	6	0110	1AC	6	0110	1EC	E	1110
02D	6	0110	06D	E	1110	0AD	E	1110	0ED	6	0110	12D	E	1110	16D	6	0110	1AD	6	0110	1ED	E	1110
02E	6	0110	06E	E	1110	0AE	E	1110	0EE	6	0110	12E	E	1110	16E	6	0110	1AE	6	0110	1EE	E	1110
02F	6	0110	06F	E	1110	0AF	E	1110	0EF	6	0110	12F	E	1110	16F	6	0110	1AF	6	0110	1EF	E	1110
030	E	1110	070	6	0110	0B0	6	0110	0F0	E	1110	130	6	0110	170	E	1110	1B0	E	1110	1F0	6	0110
031	E	1110	071	6	0110	0B1	6	0110	0F1	E	1110	131	6	0110	171	E	1110	1B1	E	1110	1F1	6	0110
032	E	1110	072	6	0110	0B2	6	0110	0F2	E	1110	132	6	0110	172	E	1110	1B2	E	1110	1F2	6	0110
033	E	1110	073	6	0110	0B3	6	0110	0F3	E	1110	133	6	0110	173	E	1110	1B3	E	1110	1F3	6	0110
034	E	1110	074	6	0110	0B4	6	0110	0F4	E	1110	134	6	0110	174	E	1110	1B4	E	1110	1F4	6	0110
035	E	1110	075	6	0110	0B5	6	0110	0F5	E	1110	135	6	0110	175	E	1110	1B5	E	1110	1F5	6	0110
036	E	1110	076	6	0110	0B6	6	0110	0F6	E	1110	136	6	0110	176	E	1110	1B6	E	1110	1F6	6	0110
037	A	1010	077	6	0110	0B7	2	0010	0F7	E	1110	137	2	0010	177	E	1110	1B7	A	1010	1F7	6	0110
038	E	1110	078	6	0110	0B8	6	0110	0F8	E	1110	138	6	0110	178	E	1110	1B8	A	1010	1F8	2	0010
039	E	1110	079	6	0110	0B9	2	0010	0F9	A	1010	139	2	0010	179	A	1010	1B9	A	1010	1F9	2	0010
03A	E	1110	07A	6	0110	0BA	2	0010	0FA	A	1010	13A	6	0110	17A	E	1110	1BA	A	1010	1FA	2	0010
03B	A	1010	07B	6	0110	0BB	2	0010	0FB	A	1010	13B	2	0010	17B	A	1010	1BB	A	1010	1FB	2	0010
03C	E	1110	07C	6	0110	0BC	6	0110	0FC	E	1110	13C	6	0110	17C	E	1110	1BC	E	1110	1FC	6	0110
03D	E	1110	07D	6	0110	0BD	6	0110	0FD	E	1110	13D	6	0110	17D	E	1110	1BD	E	1110	1FD	6	0110
03E	E	1110	07E	6	0110	0BE	6	0110	0FE	E	1110	13E	6	0110	17E	E	1110	1BE	E	1110	1FE	6	0110
03F	E	1110	07F	6	0110	0BF	6	0110	0FF	E	1110	13F	6	0110	17F	E	1110	1BF	E	1110	1FF	6	0110

PART NUMBER: 23-946A9-00
DEVICE TYPE: 512 X 4
SCHEMATIC SHEET #10-CS-MB391-0-MCTC
LOCATION/DESCRIPTION: E51 / PROTECTION ROM

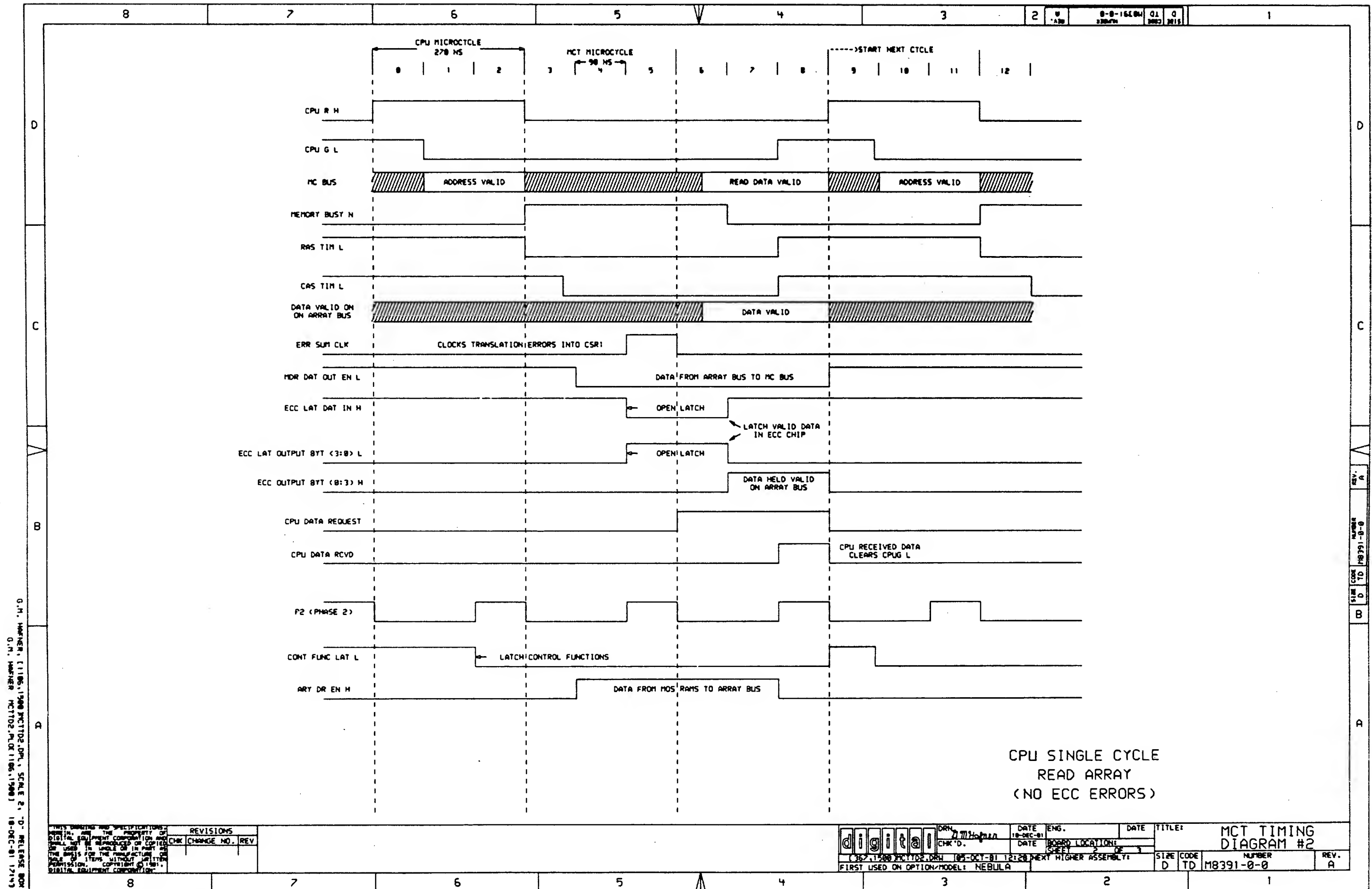
LEFT COLUMN OF BIN DATA IS MSB
BINARY DATA "1" = HIGH
BINARY DATA "0" = LOW

THIS DRAWING AND SPECIFICATIONS HEREIN, AND THE CONTENTS OF DIGITAL EQUIPMENT CORPORATION SHALL NOT BE REPRODUCED OR COPIED IN ANY MANNER OR FOR ANY PURPOSE, WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.	REVISIONS	
	CHK	CHANGE NO. REV

0.1. HARPER, 11186, 1508 PCT101, DR., SCALE 2, 0. RELEASE FOR
0.1. HARPER, 11186, 1508 PCT101, DR., 10-DEC-81 17:13



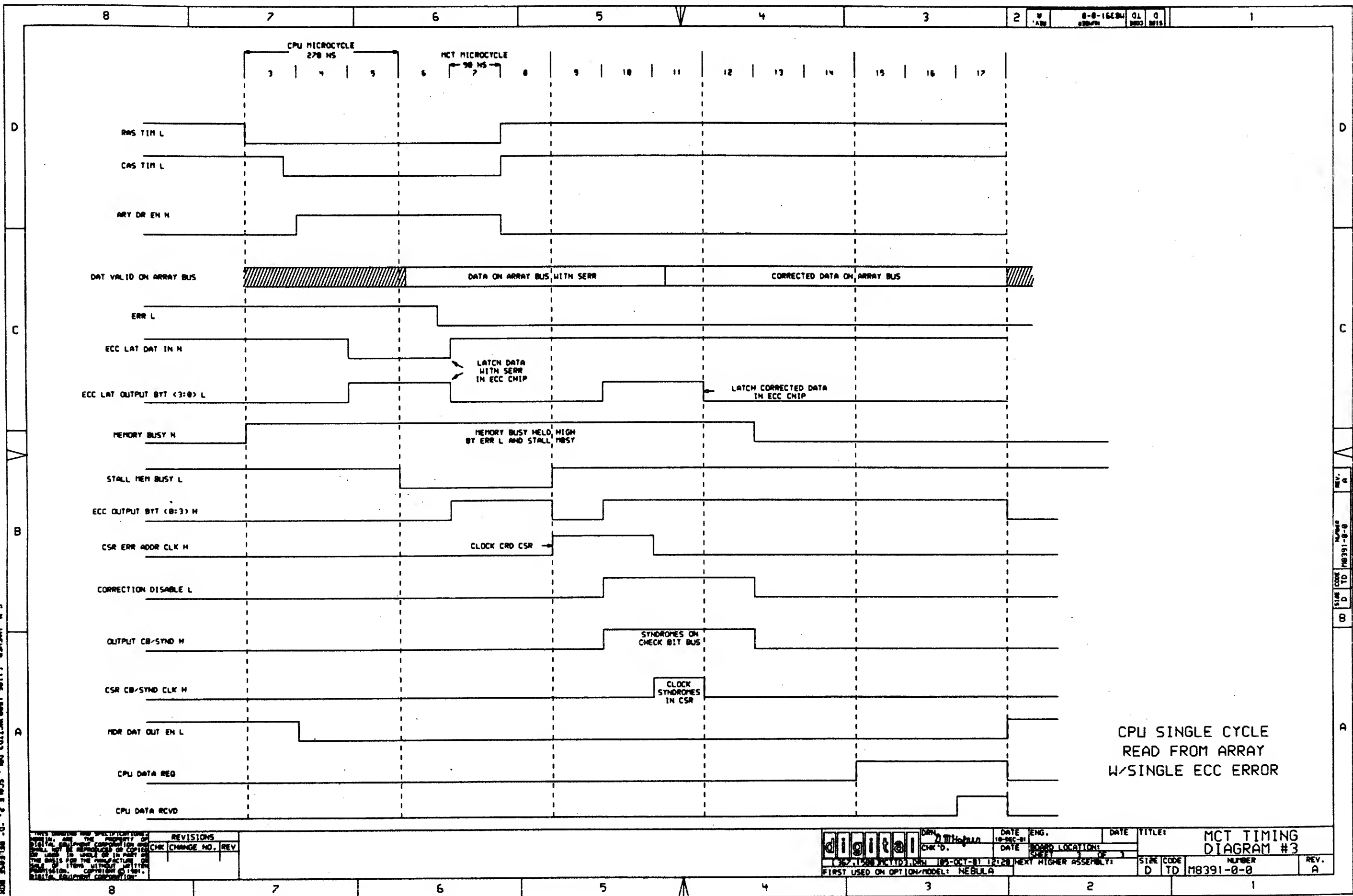
digital	DATE ENG. 10-DEC-81	DATE 10-DEC-81	TITLE: MCT TIMING DIAGRAM #1
11186, 1508 PCT101, DR.	DATE 10-DEC-81	DATE 10-DEC-81	DATE 10-DEC-81
FIRST USED ON OPTION/MODEL: NEBULA	DATE 10-DEC-81	DATE 10-DEC-81	DATE 10-DEC-81
SIZE CODE D	CODE 10	NUMBER 1	REV. A



CPU SINGLE CYCLE
READ ARRAY
(NO ECC ERRORS)

G.M. WARNER, (1196,1198) MCT102.DRW, SCALE 2, "D" RELEASE 808
G.M. WARNER MCT102.PLOX (1196,1198) 18-DEC-81 1213

THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OF ANY ITEM WITHOUT WRITTEN PERMISSION, COPYRIGHT © 1981, DIGITAL EQUIPMENT CORPORATION.		REVISIONS CHK CHANGE NO. REV		digital C357,1500 MCT102.DRW 105-OCT-81 12:20 NEXT HIGHER ASSEMBLY: FIRST USED ON OPTION/MODEL: NEBULA		DATE 18-DEC-81 DATE 18-DEC-81 DATE 18-DEC-81	ENG. CHK'D. DATE 18-DEC-81	DATE 18-DEC-81 DATE 18-DEC-81 DATE 18-DEC-81	TITLE: MCT TIMING DIAGRAM #2	SIZE CODE D TD	NUMBER M8391-0-0	REV. A
---	--	---------------------------------	--	---	--	--	----------------------------------	--	------------------------------	----------------	------------------	--------



8

8 0 0 0 5 8 9 3 0 0 B

6

5

LAYER 1

3

2

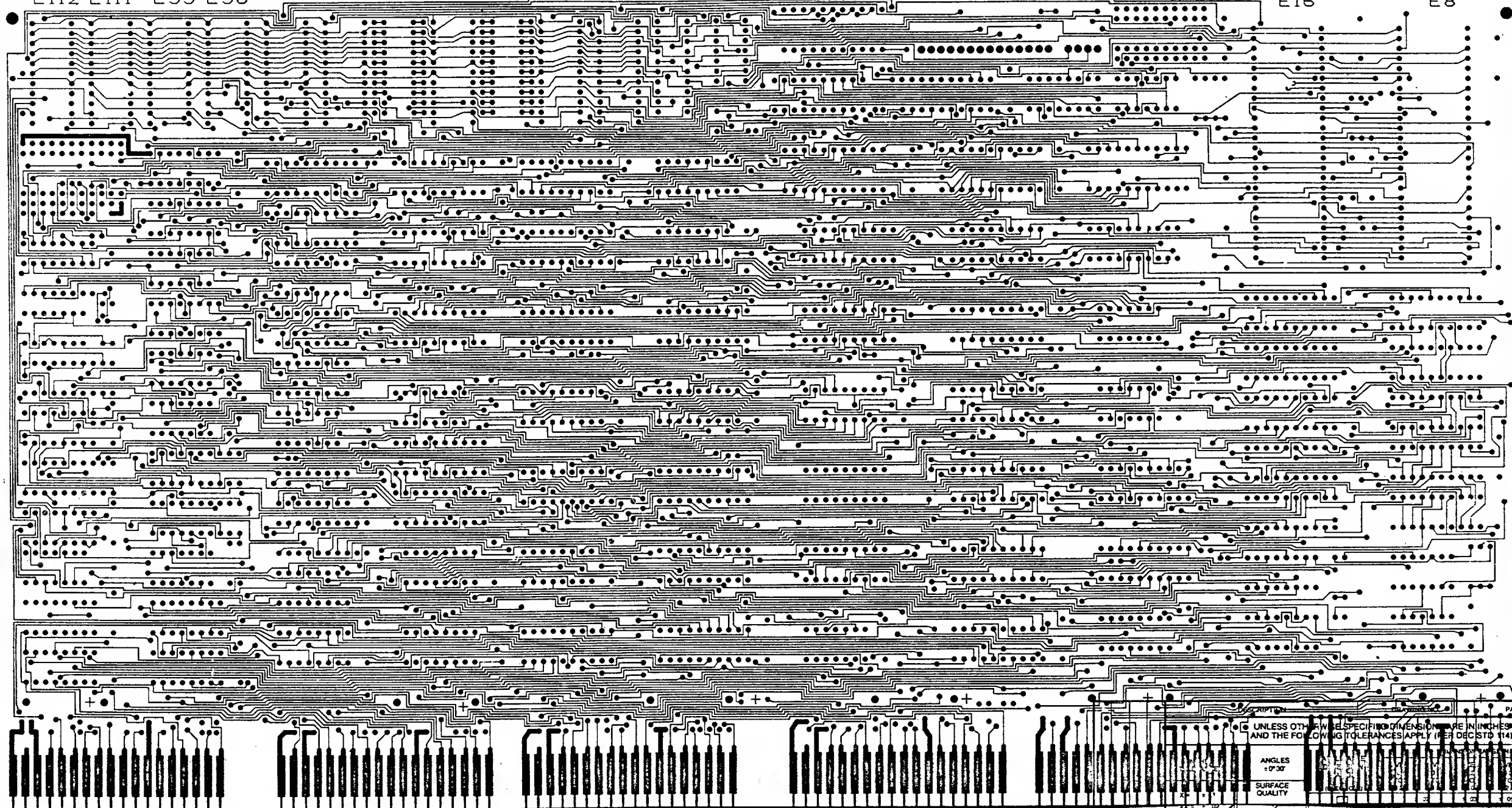
1

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF CHRYSLER CREDIT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED, OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ANY EQUIPMENT WITHOUT THE WRITTEN PERMISSION OF CHRYSLER CREDIT CORPORATION.

CS*ABCDEFGHIJKLMNPRS
E112 E111 E99 E98 E86 E85 E74 E73 E64 E63 E62 E54 E53 E45 E25 E16 E8

SIDE 1

digital



D

C

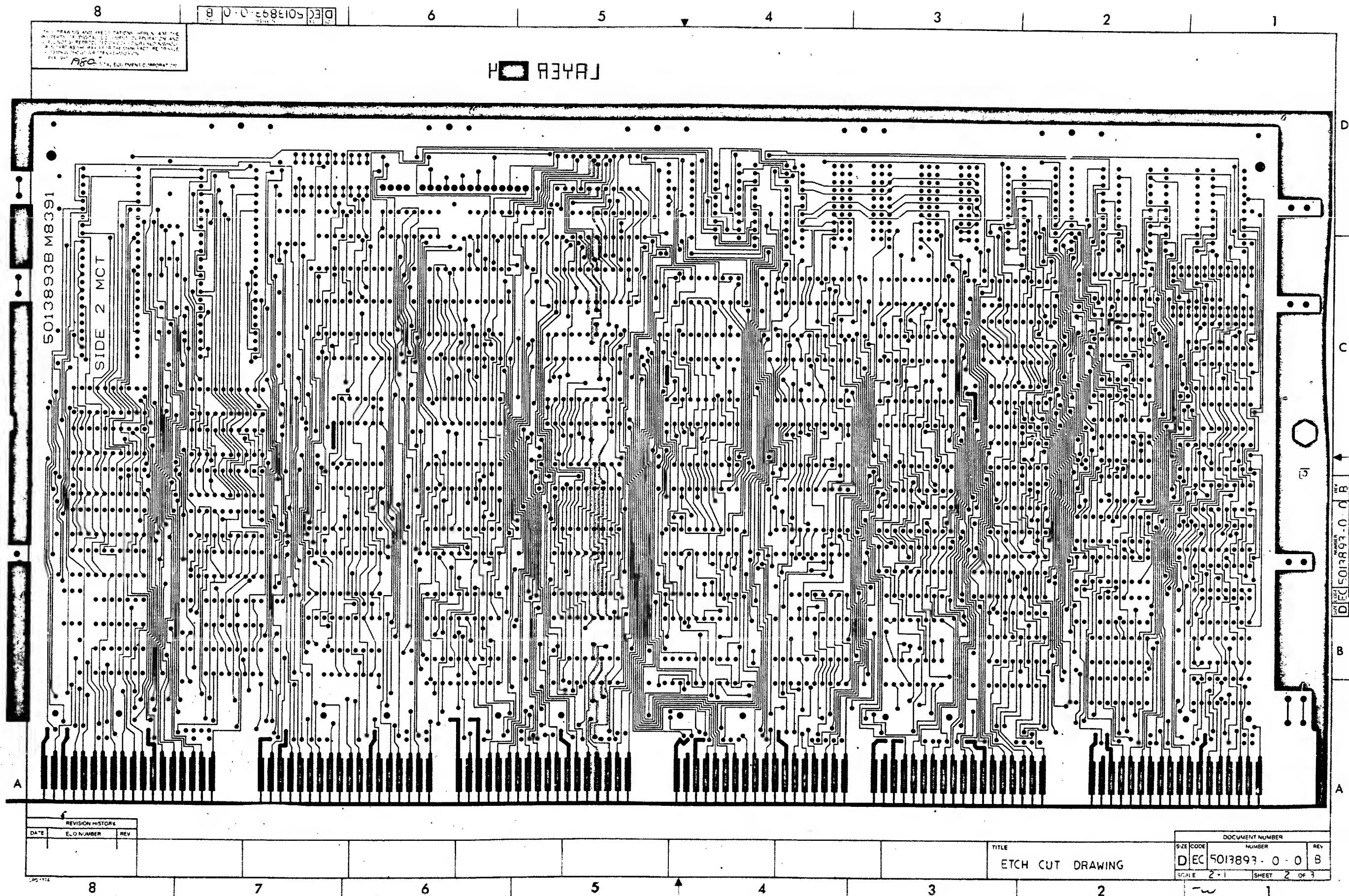
B

A

DEC 5013893-0-0 B

REVISION HISTORY		
DATE	ECO NUMBER	REV
12/1/83	10001	B
12/1/83	10001	A

QUANTITY VARIATION		THIRD ANGLE PROJECTION		DATE 7-9-80		TITLE digital	
DO NOT SCALE DRAWING		REMOVE BURRS AND BREAK SHARP CORNERS		DATE 7-9-80		ETCH CUT DRAWING	
MATERIAL		FINISH		DATE 8-8-80		DOCUMENT NUMBER DEC 5013893-0-0 B	
NEXT WORK ORDER		DATE 7-9-80		SCALE 2-1		SHEET OF 3	



8

DEC 5013893-0-0 B

6

5

4

3

2

1

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE
PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND
SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE
OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE
OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT 1980 DIGITAL EQUIPMENT CORPORATION

REWORK INSTRUCTIONS:

ETCH CUT SIDE 2:

~~0-1 BETWEEN E108-12 TO E105-7.~~

ECO#M8391 TW001

1-1. STEP *0-1 OF THIS DRAWING IS ELIMINATED
AS PER ECO M8391-TW001.

D

D

C

C

B

B

A

A

DEC 5013893-0-0 B

REVISION HISTORY		
DATE	ECO NUMBER	REV.

DOCUMENT NUMBER		
SIZE	CODE	NUMBER
DEC	5013893-0-0	B
SCALE	2-1	SHEET 3 OF 3

ETCH CUT DRAWING

TW

8

7

6

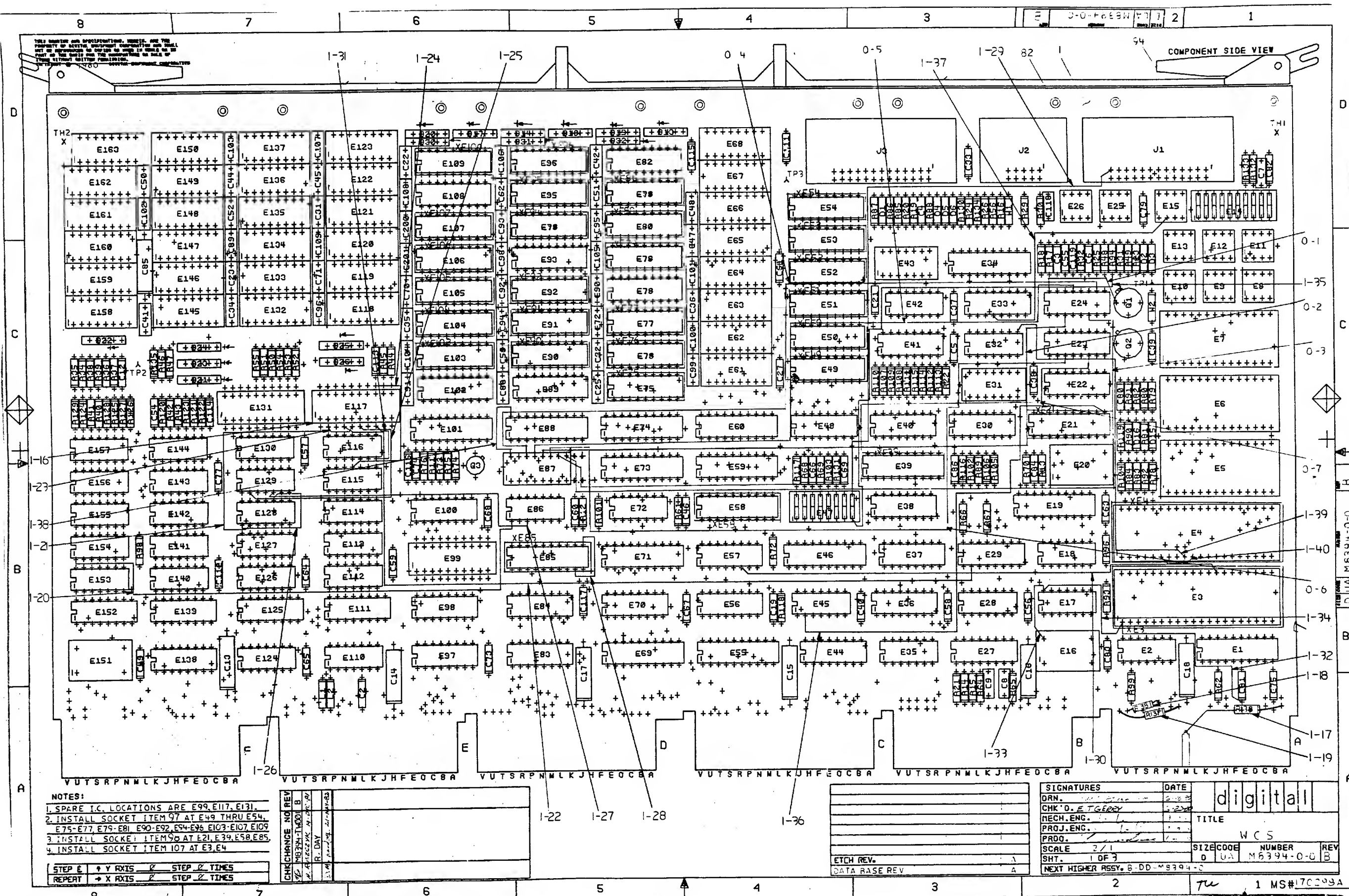
5

4

3

2

1



THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF SEVEN COMPANY CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF SEVEN COMPANY CORPORATION.

- NOTES:
1. SPARE I.C. LOCATIONS ARE E99, E117, E131.
 2. INSTALL SOCKET ITEM 97 AT E49 THRU E54, E75-E77, E79-E81, E90-E92, E94-E96, E103-E107, E109.
 3. INSTALL SOCKET ITEM 99 AT E21, E39, E58, E85.
 4. INSTALL SOCKET ITEM 107 AT E3, E4.

STEP	E	Y AXIS	0	STEP	0	TIMES
REPEAT		X AXIS	0	STEP	0	TIMES

CHANGE NO	REV	DATE	BY	CHK
1	1	10/1/83	W. DAY	W. DAY
2	1	10/1/83	W. DAY	W. DAY
3	1	10/1/83	W. DAY	W. DAY

ETCH REV.	DATA BASE REV
1	1

SIGNATURES		DATE	digital		
DRN.		10/1/83			
CHK'D. E.T.GARY		10/1/83			
RECH.ENG.		10/1/83			
PROJ.ENG.		10/1/83			
PROO.			TITLE		
SCALE 2/1		SIZE CODE	NUMBER	REV	
SHT. 1 OF 3		0	UA	M6394-0-0	B
NEXT HIGHER ASSY. 8-DD-M6394-0					

1 MS#17009A

8

DUA M8394-0-0

6

5

4

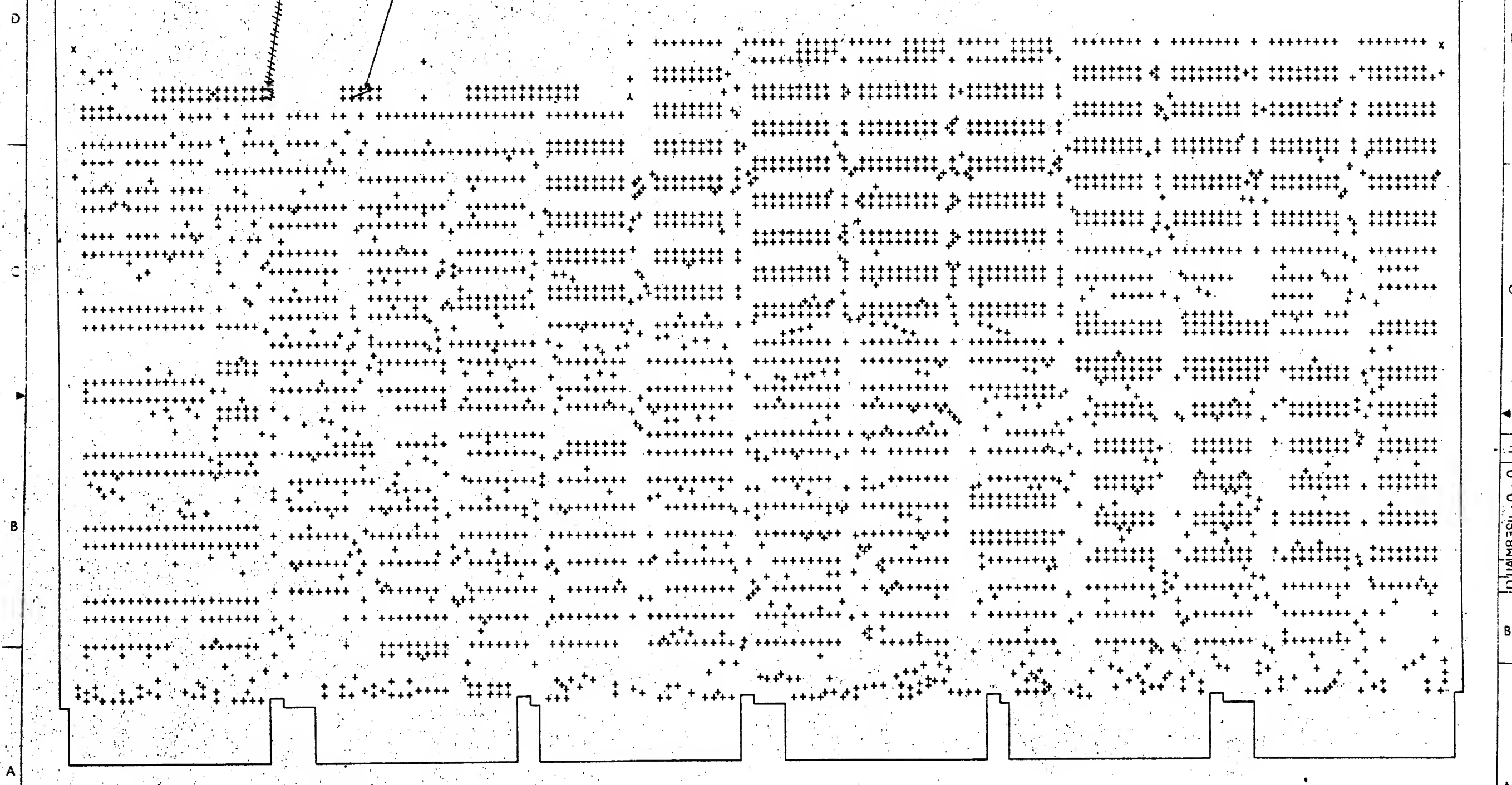
3

2

1

1950

0-10



VIEW FROM SIDE 2

DATE	FOR	BY

TITLE	
WCS	
DUA M8394-0-0	
SHEET 2	

8

7

6

5

4

3

2

1

AUTOMATED BY PRTLST,3N(43)

P A R T S L I S T

SHEET A1 OF A3

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION	REFERENCE DESIGNATOR
1	1	D-MD-5014439-0-0	5014439-00	DRILL AND ETCH BRD WCS	1
2	85		1000043-00	1000.0 MFD 250V 20% Y5F DISC	4
3	86		1010274-01	.22 MFD 50V +80-20% Z5U CER	45
4	88		1012784-00	.047 MFD 50V +80-20% CER	49
5	89		1013466-11	.22 MFD 50V +80-20% Z5U CER	1
6	87		1017472-00	10 MFD 35V +50-10% AL EL	7
7	90		1100122-00	1N 748A VZ= 3.9 5%	1
8	91		1105796-00	1N 4004 PIV=400 I= 1A D041 SP	7
9	93		1209941-09	HEADER 26POS RT ANGLE RCPT	2
10	92		1209941-05	HEADER,100 10POS RT ANGLE	1
11	94		1216908-02	HANDLE,MODULE,HEX TWO EJECTORS	1
12	95		1211164-04	SW,DIP 1P 1A 8POS	1
13	96		1211164-06	SW,DIP 1P 1A 10POS	1
14	97		1215006-03	SOCKET 10PIN IC LOW PROFILE	24
15	98		1215006-04	SOCKET 20PIN IC LOW PROFILE	4
16	2		1300197-00	.33.0 .25 W 5.0 % CC	1
17	3		1300229-00	100.0 .25 W 5.0 % CC	33
18	4		1300295-00	330.0 .25 W 5.0 % CC	1
19	5		1300309-00	390.0 .25 W 5.0 % CC	2

C7-C9,C118
 C22,C23,C25,C31,C32,C34-C36,C41,
 C42,C44,C45,C47,C48,C50-C53,C62,
 C70-C72,C88-C96,C98-C109,C200,
 C201
 C2-C6,C12,C19,C21,C27,C33,
 C37-C40,C46,C49,C54-C61,C63-C69,
 C73-C75,C81-C84,C111-C117,C119,
 C77,C79,C86
 C80
 C13-C18,C85
 D15
 D1-D6,D16
 J1,J3
 J2
 E47
 E14
 XE49-XE54,XE75-XE77,XF79-XE81,
 XE90-XE92,XE94-XE96,XE103-XE107,
 XE109
 XF21,XE39,XE85,XE58
 R80
 R11-R16,R25,R35,R37,R39,R41,R43,
 R45,R47,R51,R53,R61,R62,R70,R74,
 R93,R96,R98,R99,R101,R102,
 R116-R118,R135,R17,R19,R21
 R73
 R64,R65

REVISION HISTORY		BASIC PART NO: M8394		DRN: J.CASEY	DATE: 12-JUN-80	D I G I T A L	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: E.T.GERRY	DATE: 12-JUN-80	TITLE PARTS LIST	
---	INITIAL	A	SECTION VARIATION INDEX	DES.ENG: S.LACKEY	DATE: 7-29-80	DOCUMENT NUMBER	
			(A) 00	RESP.ENG.: S.LACKEY	DATE: 7-29-80	SIZE CODE NUMBER REV	
			(B)	IMFG.ENG.: J.CONSIDINE	DATE: 08-OCT-80	K	PL M8394-0-DBP A
			(C)	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	FILE NAME:	EDIT #
			(D)	ID-UA-M8394-0-0		Z1272.PLS	19
			(E)	THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.			
			(F)	COPYRIGHT (C) 1980. DIGITAL EQUIPMENT CORPORATION.			
			(G)				
			(H)				
			(I)				
			(J)				
			(K)				
			(L)				
			(M)				
			(N)				

TW

AUTOMATED BY PRTLST,3N(43)

P A R T S L I S T

SHEET A2 OF A3

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
20	6		1300316-00	470.0	2	R66,R67
21	7		1300365-00	1.0 K .25 W 5.0 % CC	13	R18,R20,R22,R32,R68,R69,R72,R76, R91,R94,R103,R119,R131
22	8		1302394-00	30.0 K .25 W 5.0 % CC	9	R24,R26,R29,R30,R56,R130, R132-R134
23	9		1300479-00	10.0 K .25 W 5.0 % CC	3	R89,R90,R106
24	11		1301322-00	180.0 .25 W 5.0 % CC	1	R75
25	12		1301522-00	27.0 .25 W 5.0 % CC	21	R34,R36,R38,R40,R42,R44,R50,R52, R54,R55,R120-R129,R46
26	13		1302177-00	47.0 K .25 W 5.0 % CC	4	R23,R31,R48,R49
27	14		1302379-00	75.0 .25 W 5.0 % CC	1	R78
28	15		1302391-00	20.0 K .25 W 5.0 % CC	1	R92
29	16		1302685-00	909.0 .25 W 1.0 % RN55D-F10	2	R81,R104
30	17		1303114-00	1.0 K .25 W 1.0 % RN55D-F10	1	R105
31	18		1303313-00	12.10 K .25 W 1.0 % RN55D-F10	1	R86
32	19		1309295-00	1.80 K .25 W .10 % RN55E-B 2	1	R84
33	20		1310634-00	2.67 K .25 W 1.0 % RN55D-F10	1	R87
34	21		1312628-00	R NETWORK 14-176.5 14-375 16PIN	2	E57,E84
35	22		1312990-00	17.70 K .25 W 1.0 % RN55D 10	1	R85
36	23		1313150-00	430.0 .25 W 5.0 % CC	1	R79
37	24		1313155-00	604.0 .25 W 1.0 % RN55D-F10	2	R82,R83
38	25		1313595-00	17.40 K .25 W 1.0 % RN55D-F10	1	R88
39	26		1314386-00	91.0 .25 W 5.0 % CC	9	R107-R115
40	27		1501913-00	2N 2904A PNP 600MW SI 60 40 Y	2	Q1,Q2
41	28		1503100-00	DEC3009B NPN 200MW SI 20 25	1	Q3
42	29		1601562-00	1.0 UH 10% 475MA #DD1.00	1	L2
43	30		1612946-01	33 UH 10% 260MA	1	L1
44	31		1616322-00	DELAY= 75NS,5TAPS	1	E130
45	32		1811660-01	OSCILLATOR, XTAL 10.000 MHZ	1	E20
46	33		1811660-26	OSCILLATOR, XTAL 44.4444 MHZ	1	E151
47	34		1813951-00	OSCILLATOR, XTAL 1.0 KHZ	1	E16
48	35		1910532-00	74S00 NAND GATE-QUAD 2IN	1	E86
49	36		1910534-00	74S04 INVERTER GATE-HEX 1I	5	E18,E114,E124,E144,E157
50	37		1910536-00	74S10 NAND GATE-TRIPLE 3IN	1	E128
51	38		1910544-00	74S74 FF-D DUAL,EDGE TRIGG	2	E113,E140
52	39		1910545-00	74S112 FF-JK DUAL,EDGE TRIG	1	E41
53	40		1910550-00	74S174 FF-D HEX	1	E38
54	41		1910552-00	74S194 SHIFT REG.,4BIT RIGH	6	E98,E111,F125,E138,E139,R152
55	42		1910957-00	74S175 FF-D QUAD COMMON CLO	2	E36,E97
56	43		1911579-00	8641 TRANSCEIVER,BUS,QUA	5	E27,E44,E56,E70,E83
57	44		1911676-00	74S139 DECODER-DUAL TWO-INP	2	E30,E100
58	45		1911712-00	74S51 AND-OR GATE-INVERT D	2	E35,E127
59	46		1912108-00	339 VOLT CMPRTR,QUAD	1	E31
60	47		1912308-00	74S02 NOR GATE-QUAD 2IN,PO	1	E112
61	48		1912647-00	LS257 MUX 1 OF 2 (QUAD)	2	E23,E24
62	49		1912648-00	LS251 MUX 8 INPUT,TRI-STA	2	E29,E33
63	50		1912746-00	DEC 74S37 NAND GATE-QUAD 2IN	3	E110,E115,E129
64	51		1912799-00	LS00 NAND-GATE-QUAD 2IN,P	2	E17,E32

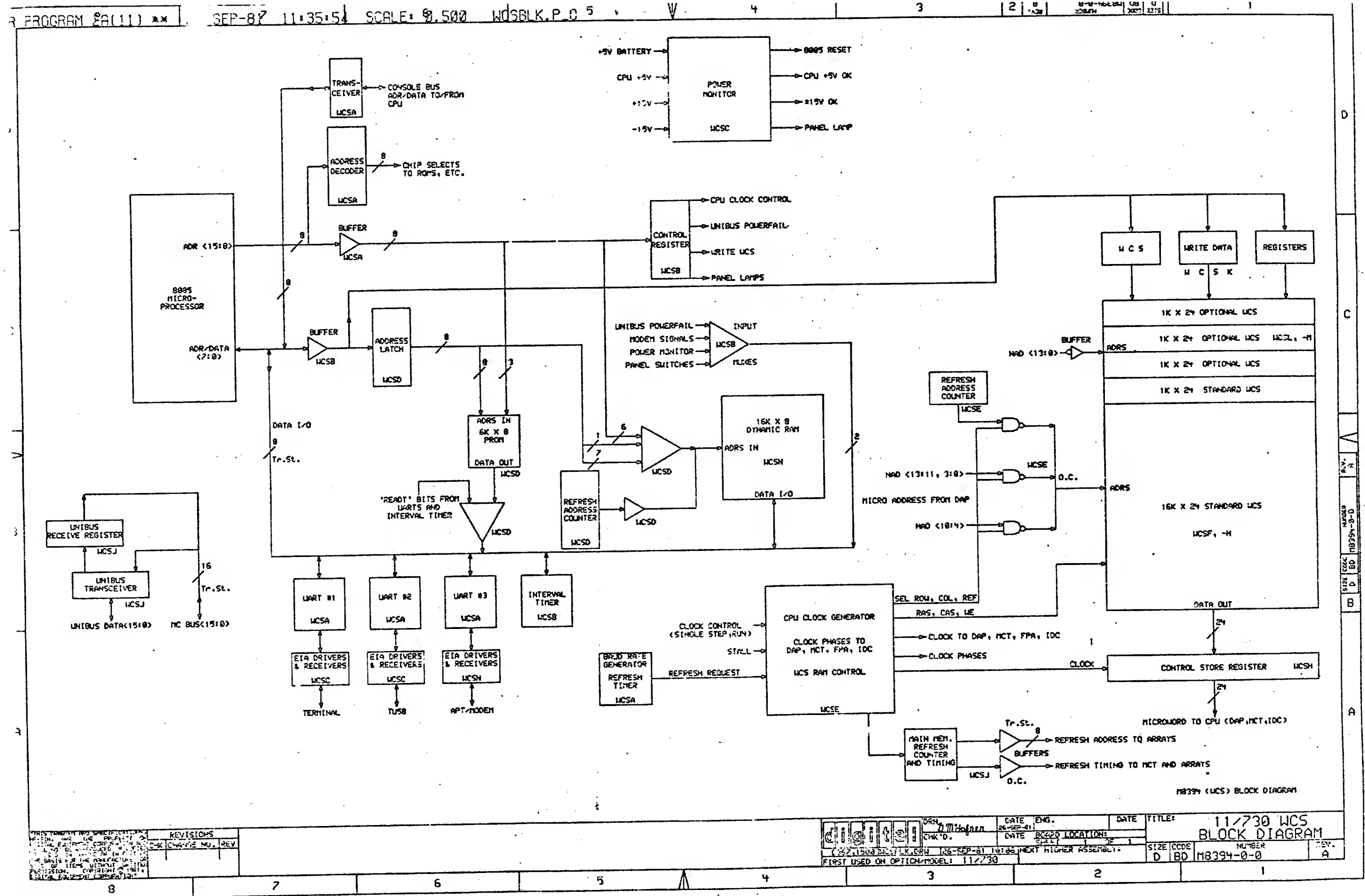
D	I	G	I	T	A	L	TITLE	WCS	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8394-0-DBP	A

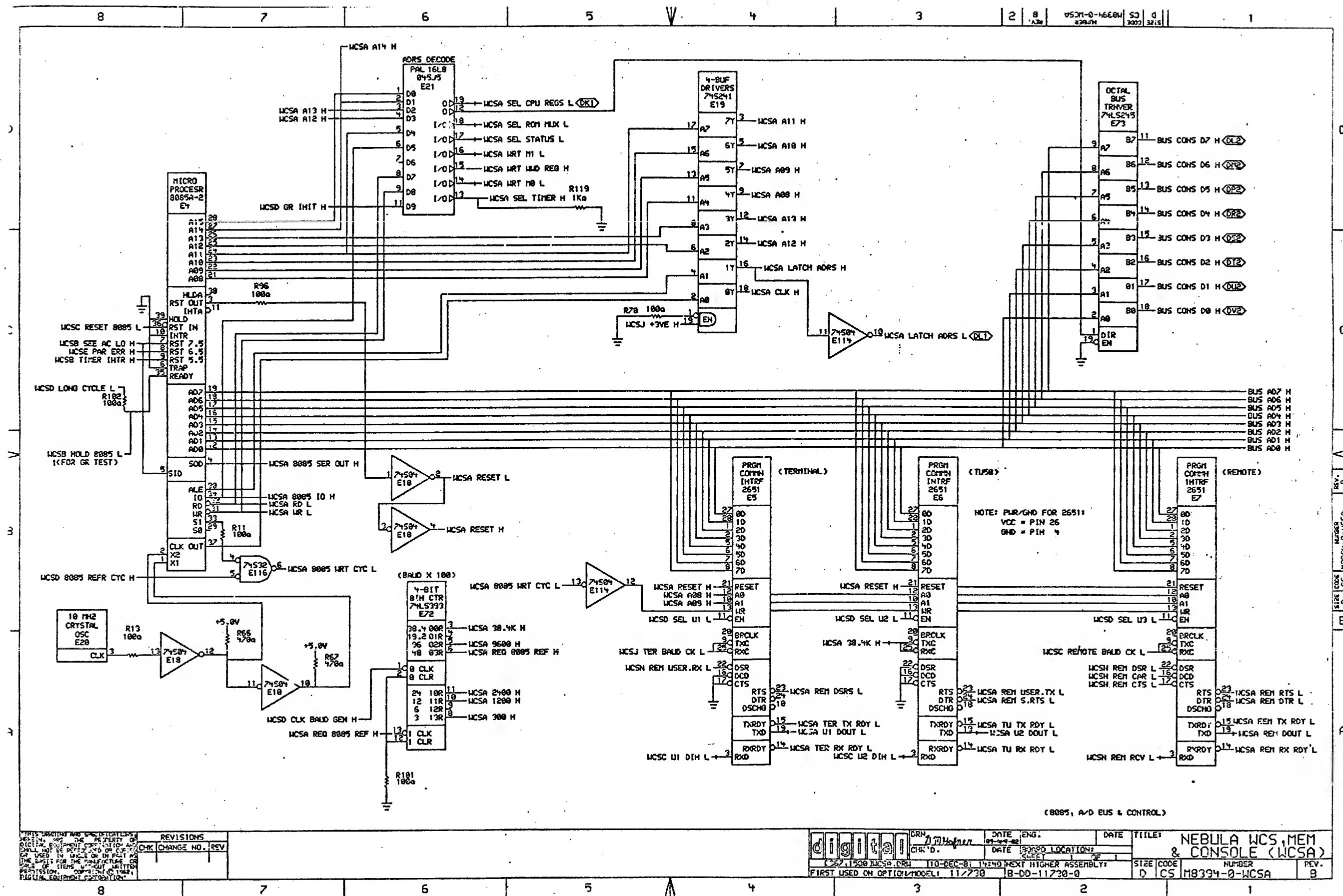
TW

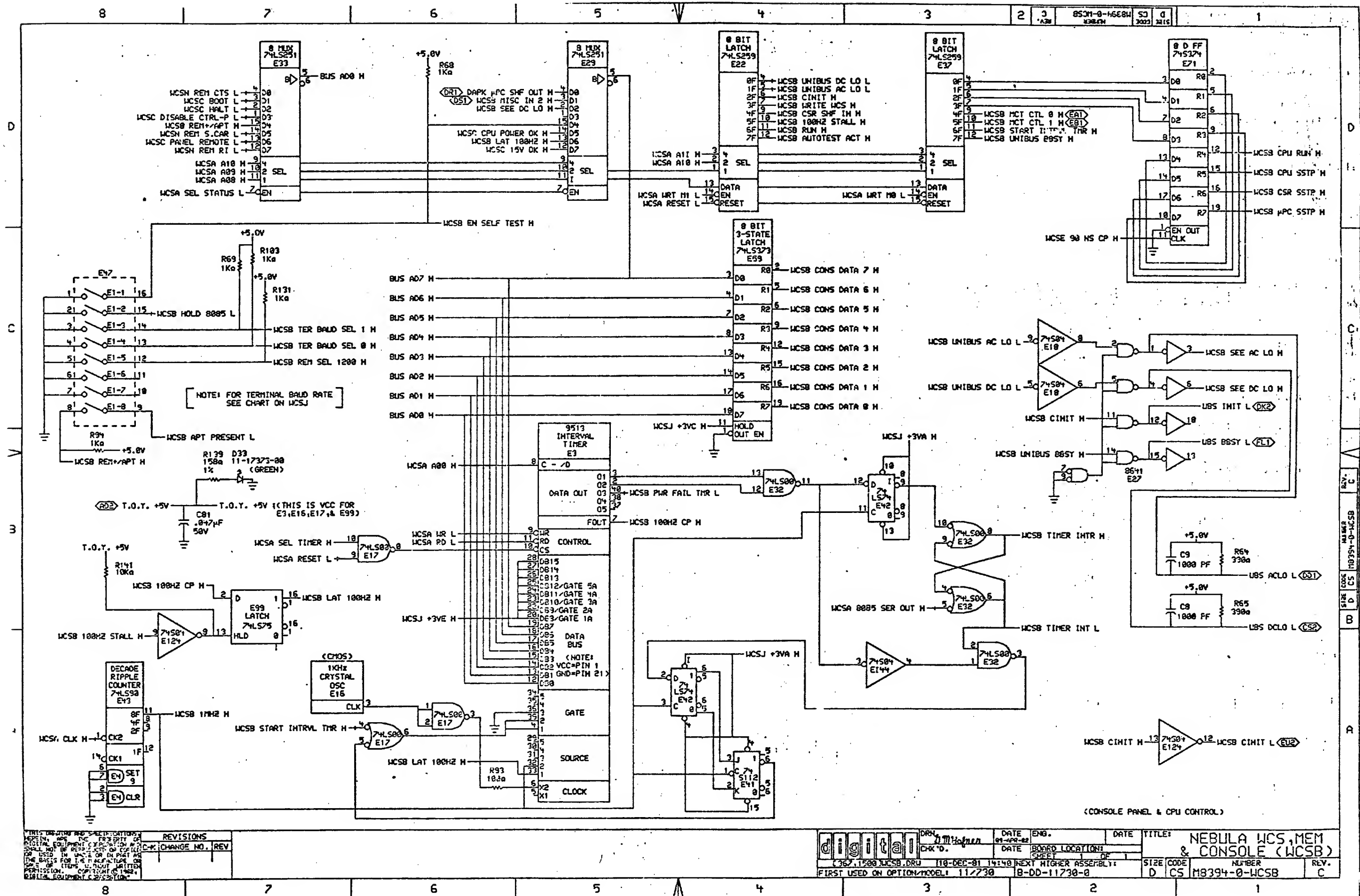
LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY PER VARIATION 00	REFERENCE DESIGNATOR
65	52		1912808-00	LS11 AND GATE-TRIPLE 3IN	1	E28
66	53		1912824-00	LS74 FF-D DUAL,EDGE TR'GG	1	E42
67	54		1912830-00	LS90 COUNTER,ASYNCH UP,DE	1	E43
68	55		1912860-00	LS259 LATCH 8BIT	2	E22,E37
69	56		1913340-00	74S32 OR GATE-QUAD 2IN	1	E116
70	57		1913462-00	74S240 OCTAL BUFFER,INVERTI	2	E46,E34
71	58		1913493-00	74S241 OCTAL BUFFER,TRI-STA	1	E19
72	59		1913670-00	74S373 LATCH 8BIT TRASP TR	3	E55,E60,E69
73	60		1913671-00	74S374 FF-D OCTAL TRISTATE	1	E71
74	61		1913777-00	LS240 DRIVER,LINE,OCTAL,T	1	E1
75	62		1913887-00	74S258 MUX 1 OF 2(QUAD)TRI	2	E40,E48
76	63		1914214-00	LS374 FF-D OCTAL EDGE TRIG	3	E74,E98,E101
77	64		1914451-00	74LS393 COUNTER,BINARY,4BIT	4	E2,E45,E72,E154
78	65		1915019-00	74S38 NAND BUFFER-QUAD 2IN	7	E126,E141-E143,E153,E155,E156
79	66		1915218-00	LS245 TRANSCEIVER,BUS,OCT	1	E73
80	67		1915219-00	LS373 FF-D OCTAL-TRANSPARE	1	E59
81	68		1915415-00	9636 DRIVER,DUAL,EIA RS-	4	E13,E9,E10,E12
82	69		1915416-00	9637 RECEIVER,DUAL,RS-42	5	E8,E11,E15,E25,E26
83	70		2115103-00	RECEIVER-PCI	3	E5-E7
84	71		2116957-02	1K MOS RAM 70NS 1	6	E78,E82,E89,E93,E102,E108
85	72		2116962-00	UP,8-BTT NMOS .8MICRO SEC. INSTR	1	E4
86	73		2117247-02	2118-1	8	E61-E68
87	74		2117247-04	2118 PAM,16KX1,DYNAMIC,10	24	E118-E123,E132-E137,E145-E150, E158-E163
88	75		2117497-00	9513 SYSTEM TIMING CONTRO	1	E3
89	77		23002K5-00	K5-01	1	E85
90	78		23012K4-00	K4-01 PAL ARRAY	1	E39
91	79		23024K3-00	K3-01 PAL,REG, CONT	1	E58
92	80		23045J5-00	J5-01 PAL,LOGIC,CONT	1	E21
93	81		7010918-01	DIODE STICK G652	15	D13,D14,D17-D26,D30-D32
94	82		9000024-01	EYELET, ROLLED FLANGE, .121 OD X	12	
95	83		9009149-00	PIN, STAKING, P.C. BOARD, .025 X	3	TP1-TP3
96	84		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	2	W1,W2
97	100		1300005-04	R NETWORK 15-470 5.0 % 16PIN	1	E87
98	102		23034F2-00	F2-01	1	E54
99	103		23035F2-00	F2-01	1	E53
100	104		23036F2-00	F2-01	1	E51
101	105		23037F2-00	F2-01	1	E49
102	106		1215006-02	*** THIS ITEM IS NOT USED ***	-	
103	107		1215006-08	SOCKET 40PIN IC LOW PROFILE	2	XE3,XE4

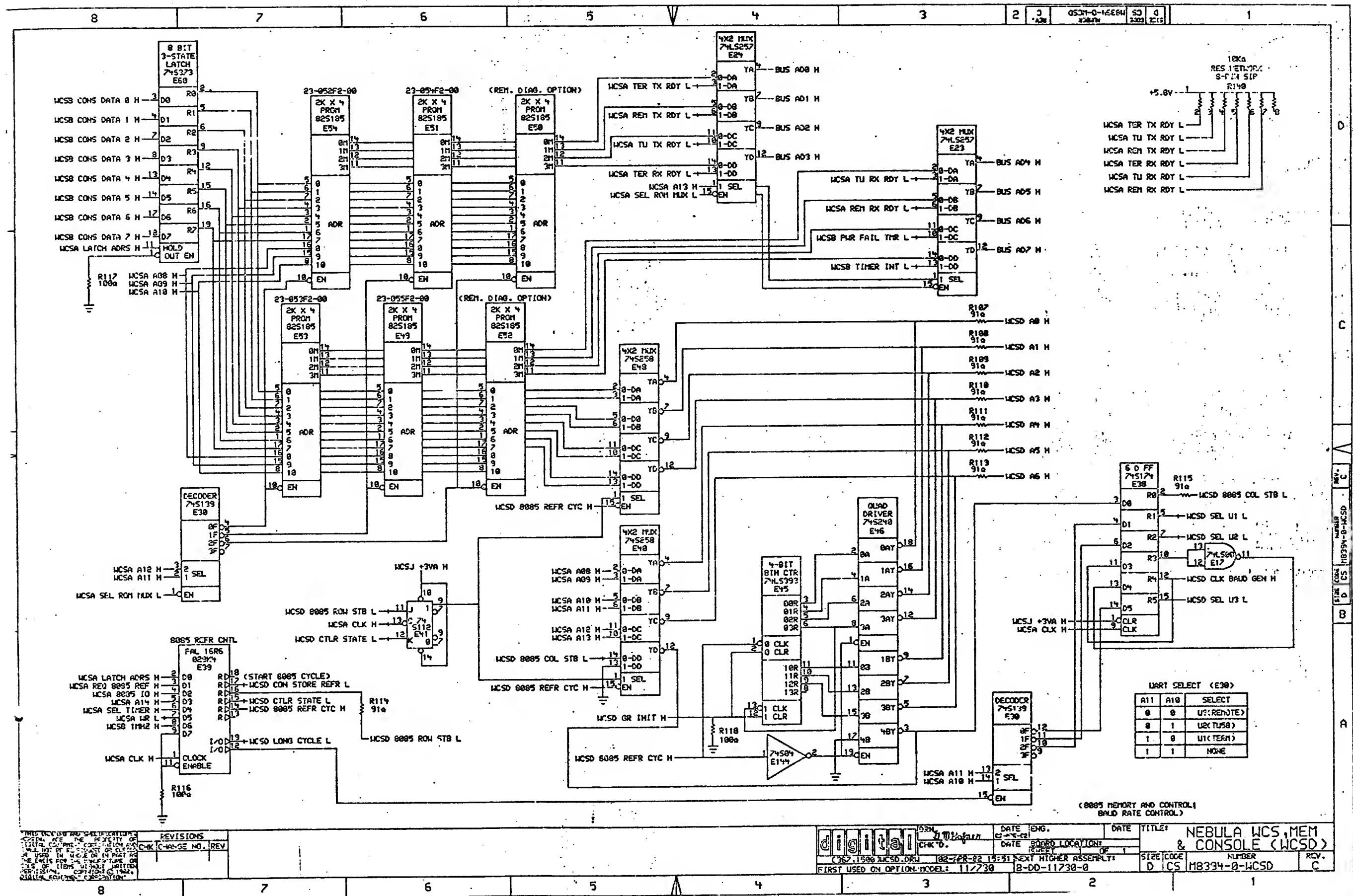
D	I	G	I	T	A	L	TITLE	WCS	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
										K	PL	M8394-0-DBP	A

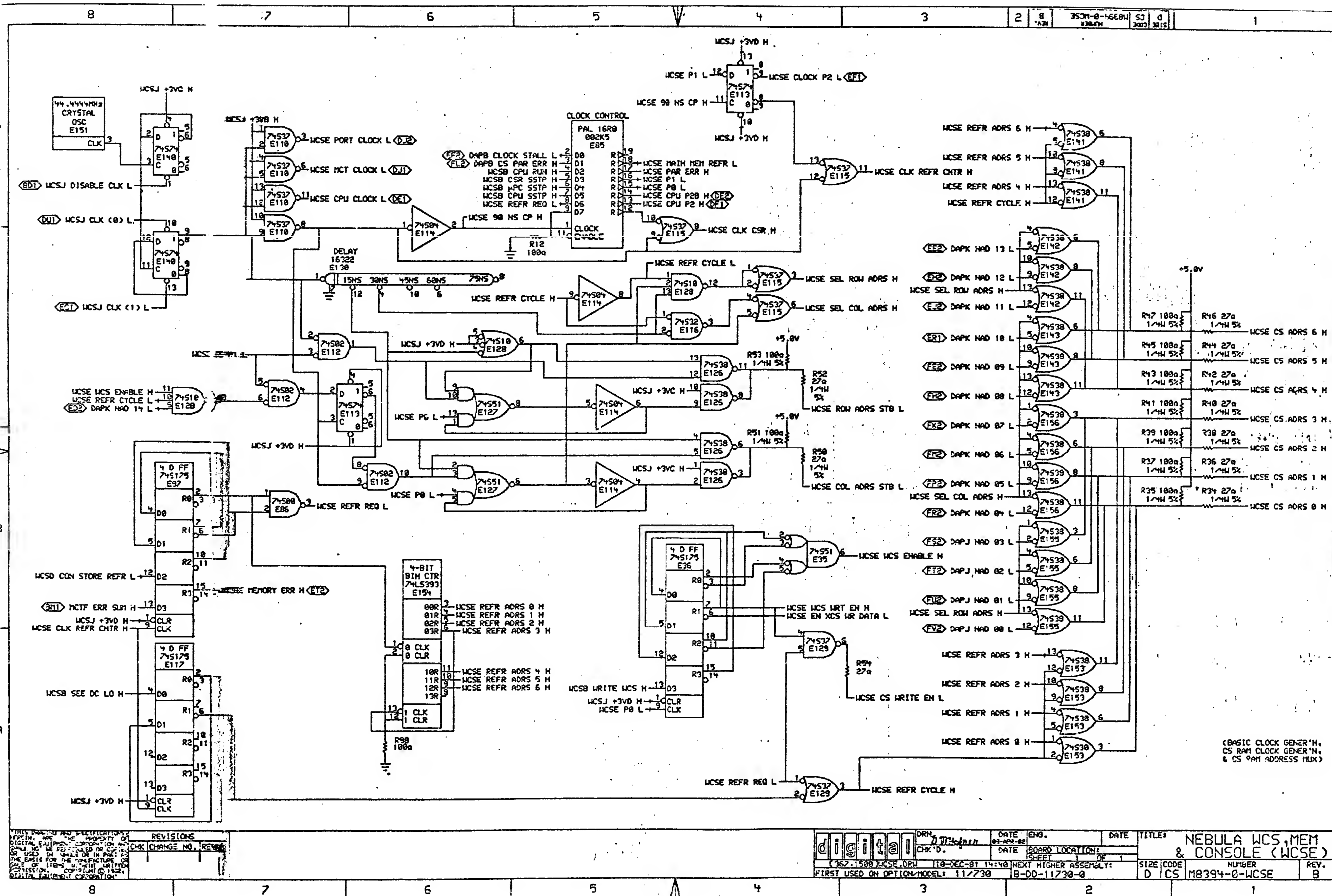
TW

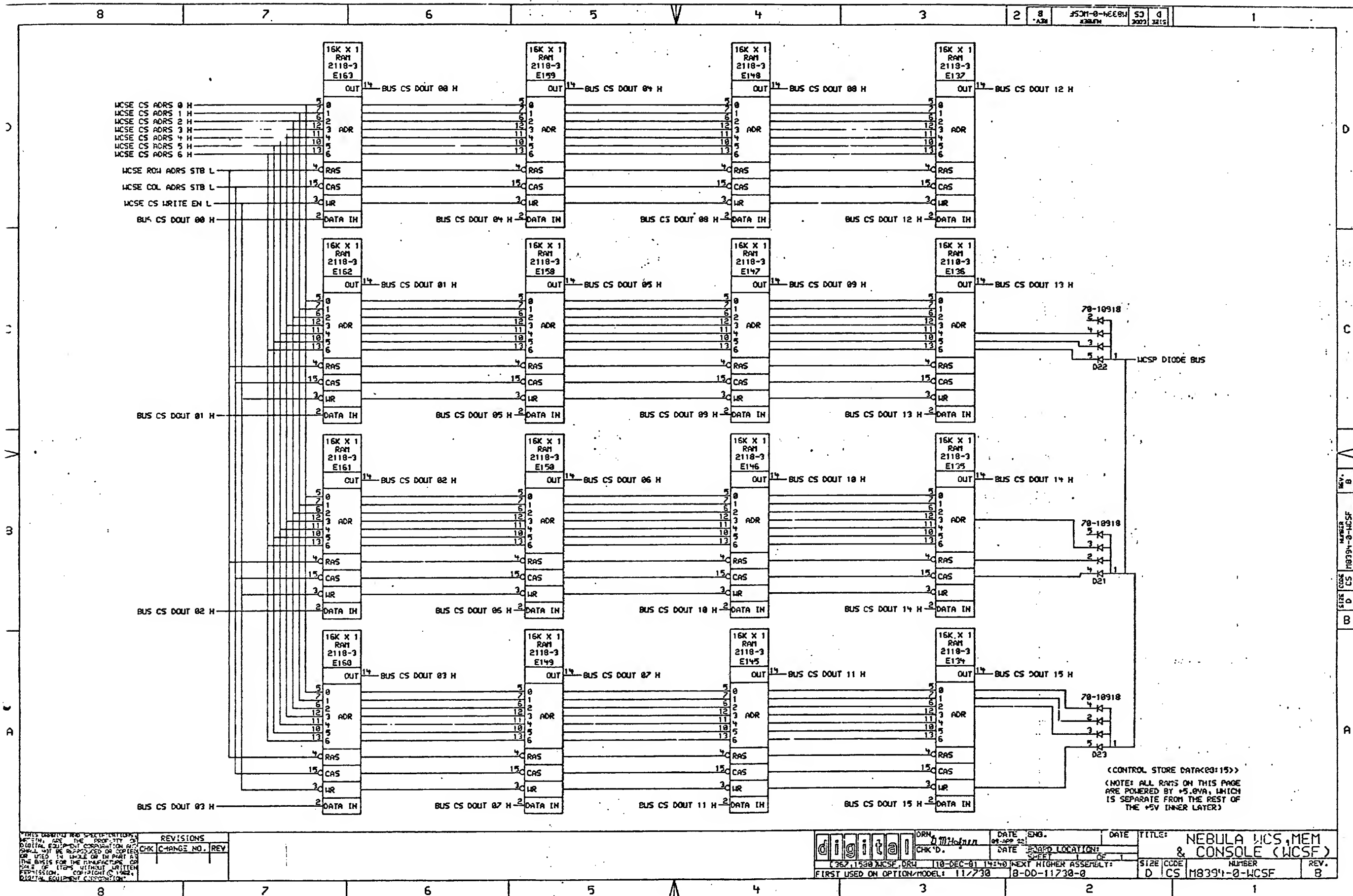


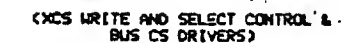


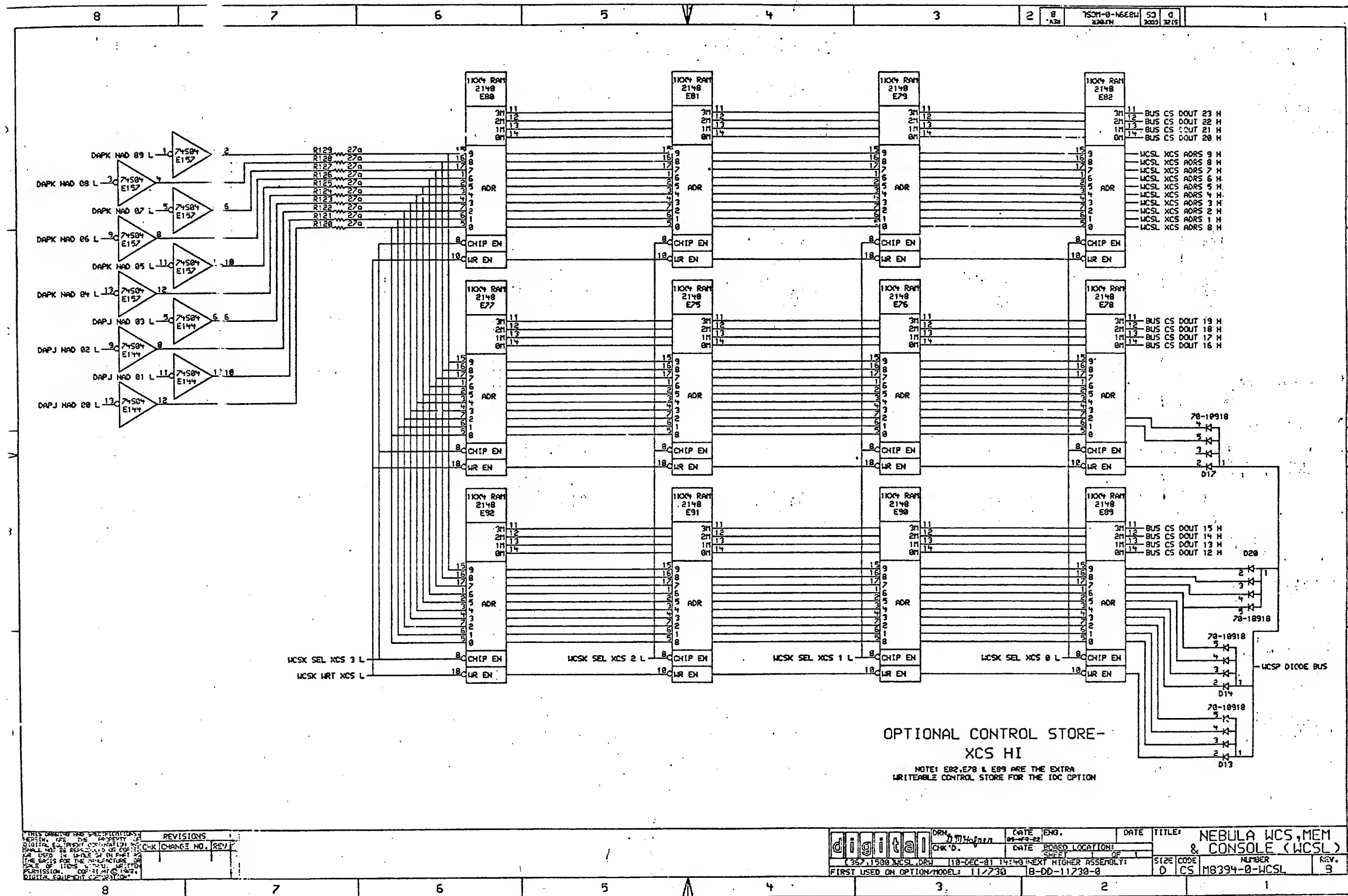


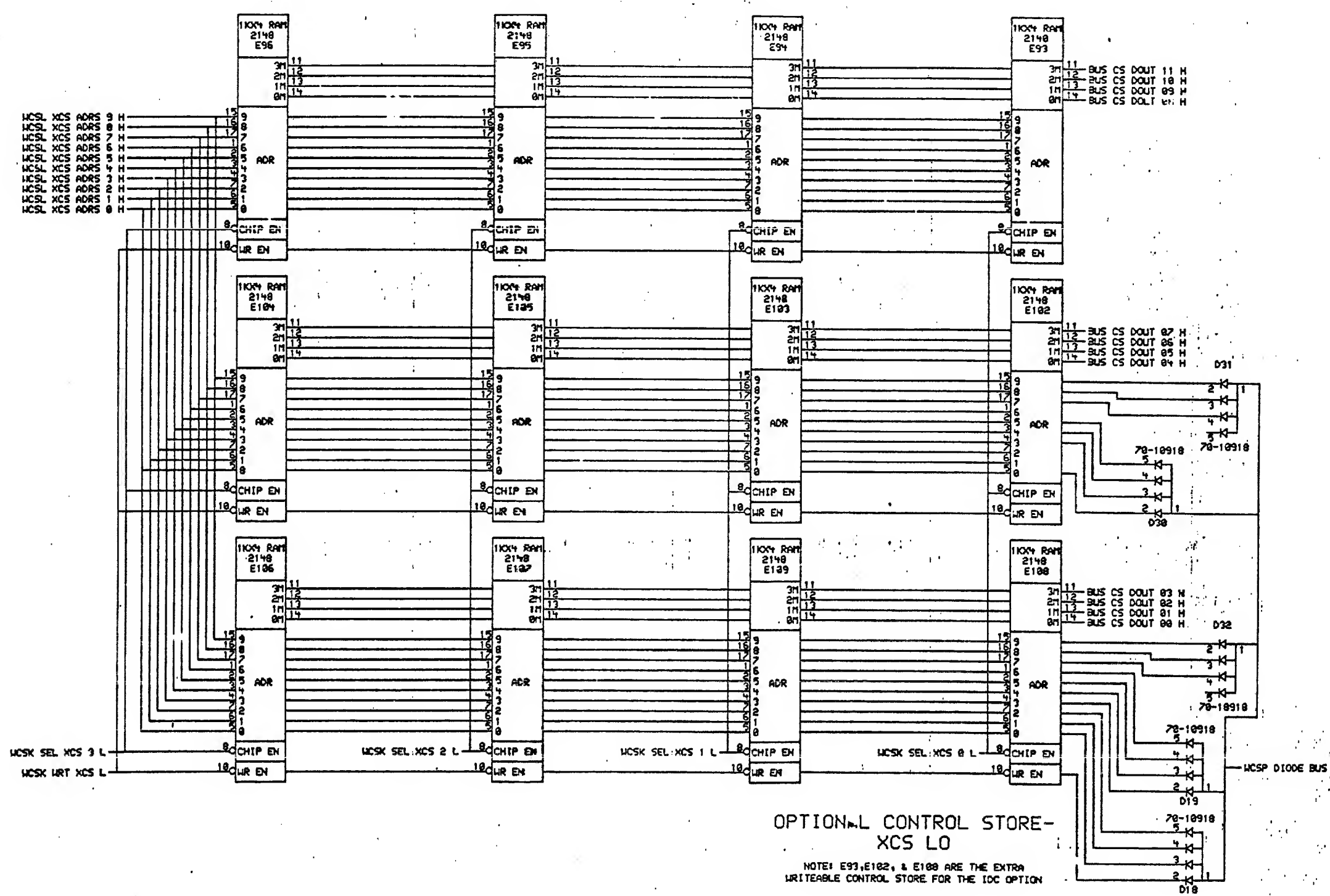






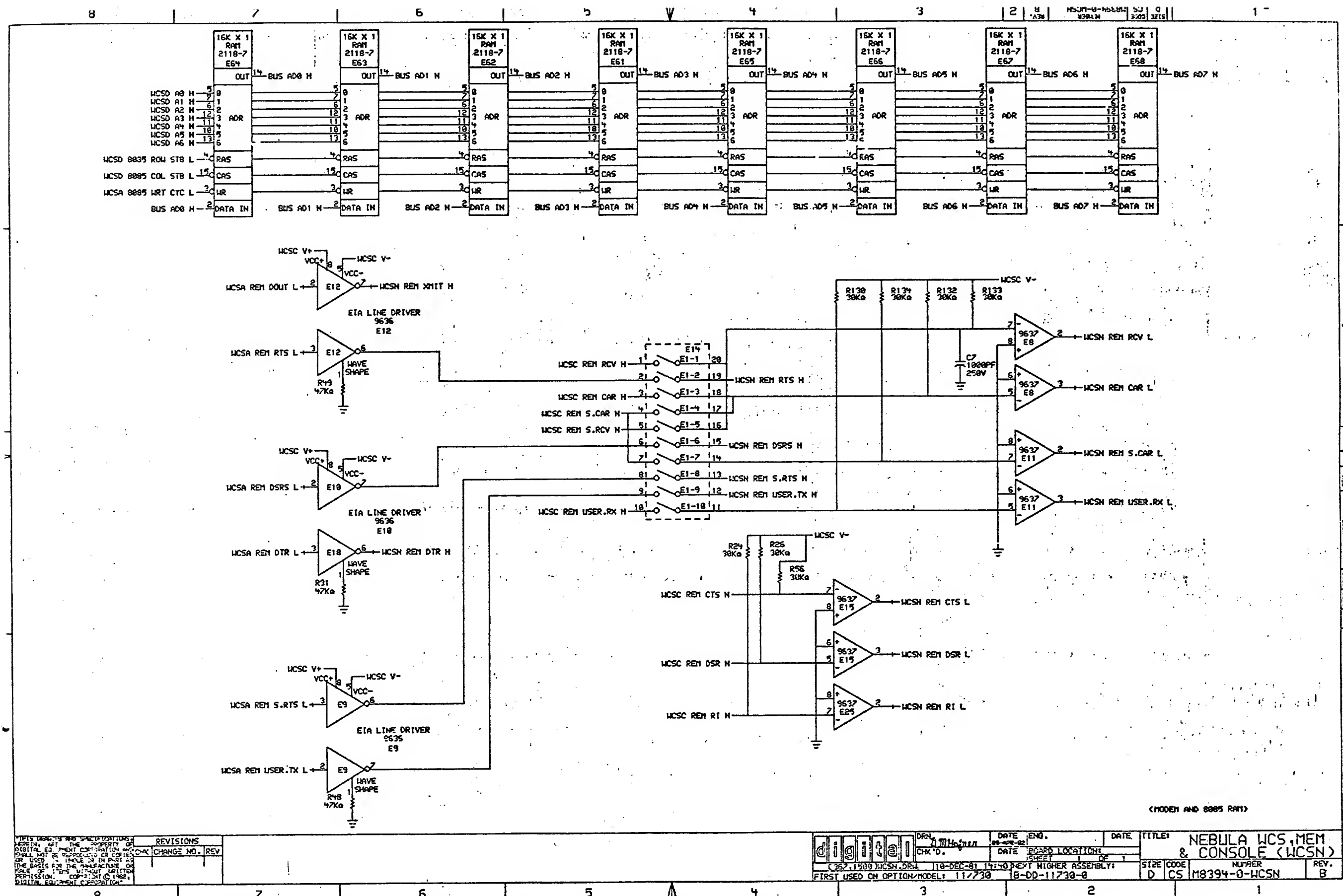






REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	ENG.	DATE	TITLE
	CHK'D.			NEBULA WCS, MEM & CONSOLE (WCSM)
C362, 1500 WCSM.DRW		110-DEC-81 14:48	NEXT HIGHER ASSEMBLY	SIZE CODE
FIRST USED ON OPTION/MODEL: 11/738		18-DD-11738-0		NUMBER
				REV.
				8



THIS DRAWING AND SPECIFICATIONS
HEREIN ARE THE PROPERTY OF
DIGITAL EQUIPMENT CORPORATION
AND SHALL NOT BE REPRODUCED OR
COPIED IN ANY FORM OR BY ANY
MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING,
OR BY ANY INFORMATION STORAGE
RETRIEVAL SYSTEM, WITHOUT
PERMISSION IN WRITING FROM
DIGITAL EQUIPMENT CORPORATION.

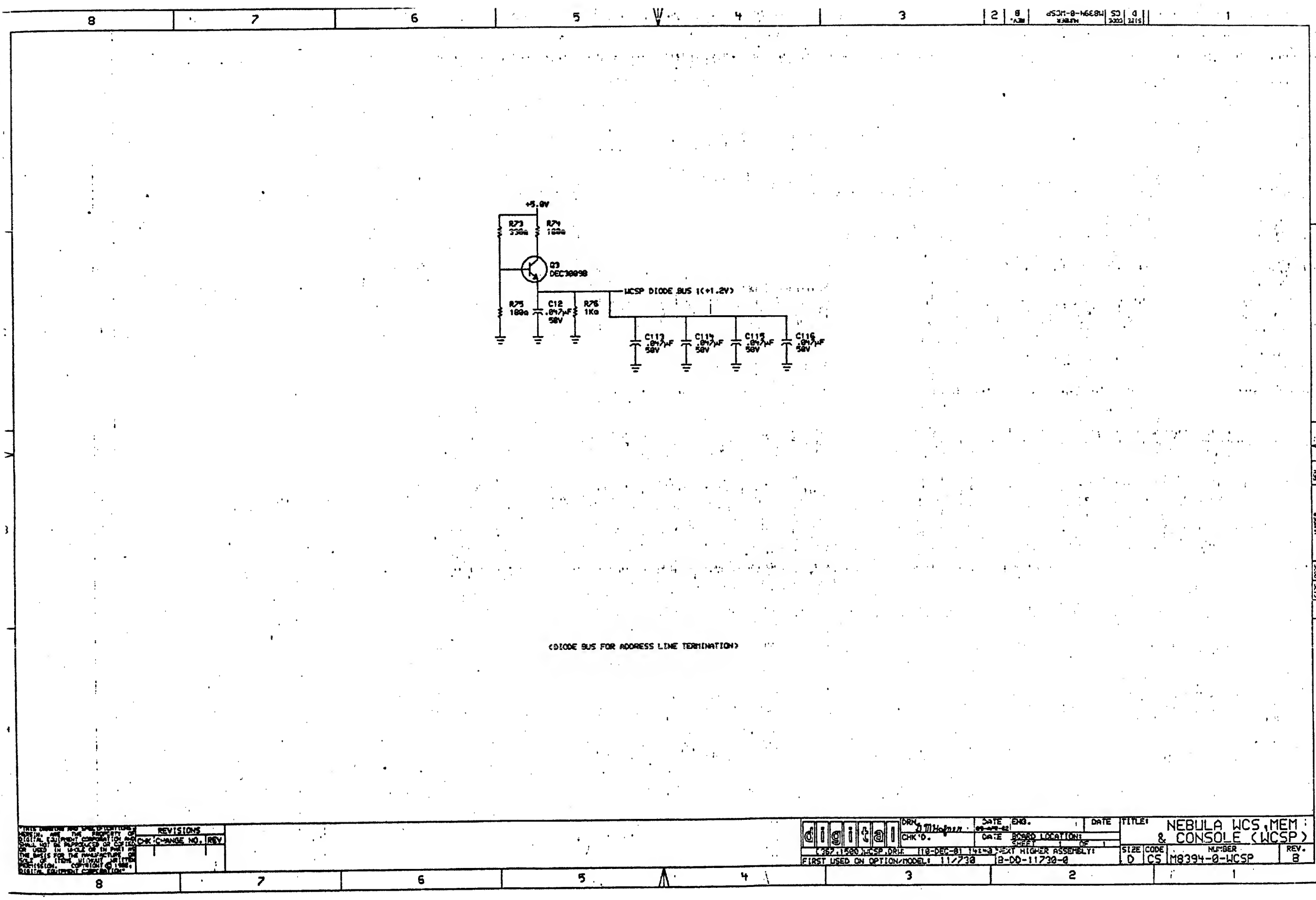
REVISIONS
CHANGE NO. REV

digital
C362,1900 WCSN.DRA
FIRST USED ON OPTION/MODEL: 11/730

DATE	ENG.	DATE	TEST
01-28-82			

DATE: 10-DEC-81 14:40
NEXT HIGHER ASSEMBLY: 18-DD-11730-0

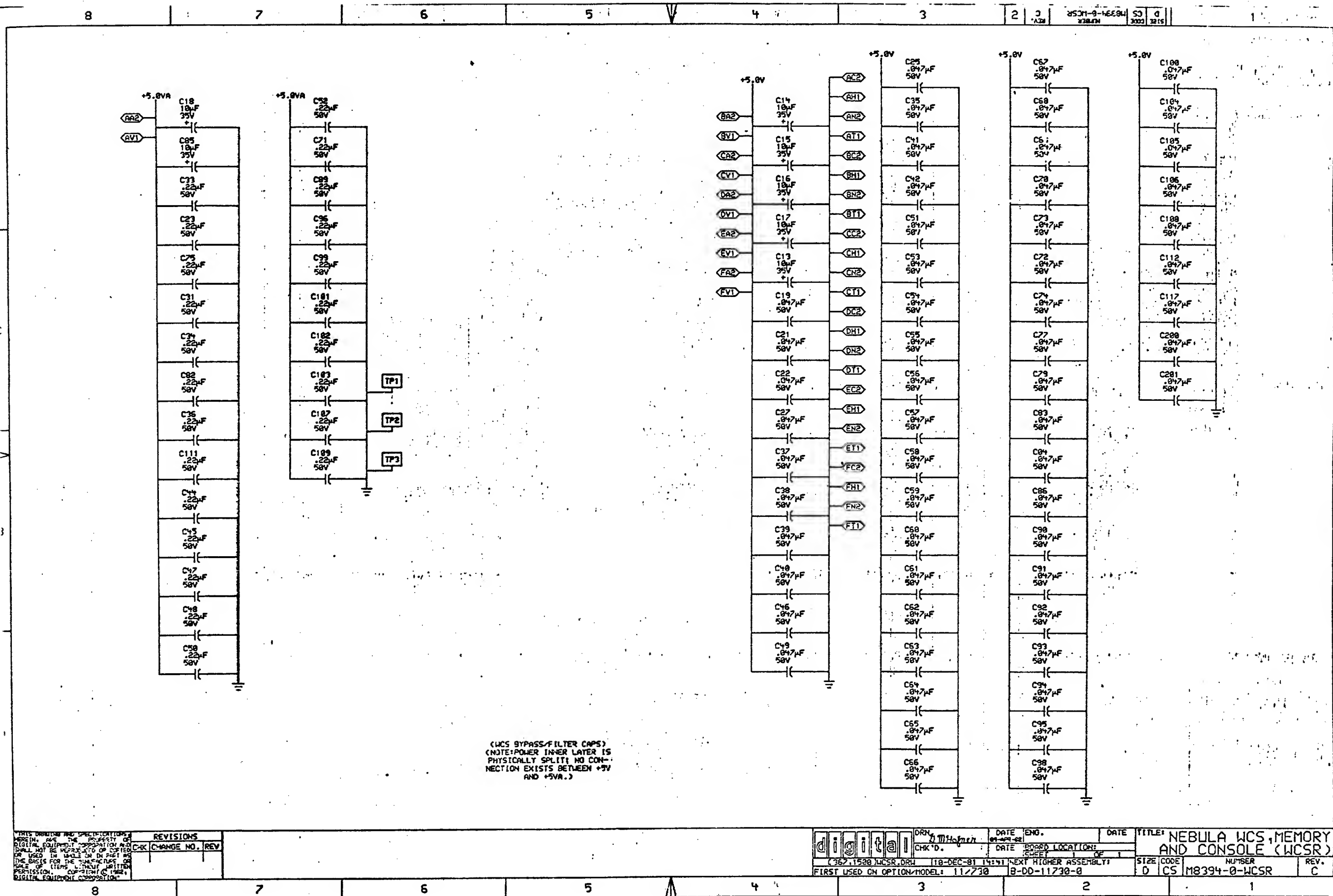
TITLE	SIZE	CODE	NUMBER	REV.
NEBULA WCS, MEM & CONSOLE (WCSN)	D	CS	M8394-0-WCSN	B



(DIODE BUS FOR ADDRESS LINE TERMINATION)

REVISIONS		DATE		TITLE	
CHK	C-ANGE NO.	REV	DATE	NEBULA WCS, MEM & CONSOLE (WCSP)	
		DATE		SIZE CODE	
		DATE		D CS	
		DATE		M8394-0-WCSP	
		DATE		REV. B	

digital
DRN: J. M. Hoffman
CHK'D: J. M. Hoffman
DATE: 11-12-81
EXT: 11730-0
FIRST USED ON OPTION/MODEL: 11730-0



THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

REVISIONS		
CHK	CHANGE NO.	REV

digital
C367.1500 WCSR.DRW
FIRST USED ON OPTION/MODEL: 117730

DRN: 11/10/73
DATE: 01-01-78
DATE: 10-DEC-81 14:41
DATE: 11-7-80
BOARD LOCATION: 1
NEXT HIGHER ASSEMBLY: B-DD-11730-0

ENG. DATE
TITLE: NEBULA WCS MEMORY AND CONSOLE (WCSR)
SIZE: CODE D
NUMBER: CS M8394-0-WCSR
REV: C

PART NUMBER: 23-045J5-00
DEVICE TYPE: PAL16L8
SCHEMATIC SHEET #10-CS-1-88394-0-WCSA
LOCATION/DESCRIPTION: E21 ADDRESS DECODE
ASSIGNED PIN NUMBER:

1= A7	8= RD	15= WRT.HND.REQ
2= A6	9= WR	16= WRITE.MI
3= A5	10= GROUND	17= SEL.STATUS
4= A4	11= TSE	18= SEL.ROM.MUX
5= A3	12= DIR	19= SEL.CPU.REQS
6= IO	13= SEL.TIMER	20= VCC
7= NC	14= WRITE.HB	

EQUATIONS:

```
IF(TSE) SEL.CPU.REQ:=IO<A7>A6<A5>A4<A3>RD
+IO<A7>A6<A5>A4<A3>RD

IF(TSE) SEL.ROM.MUX:=IO<A7>A6<A5>A4<A3>RD
+IO<A7>A6<A5>A4<A3>RD

IF(TSE) SEL.STATUS:=IO<A7>A6<A5>A4<A3>RD
+IO<A7>A6<A5>A4<A3>RD

IF(TSE) WRT.HND.REQ:=IO<A7>A6<A5>A4<A3>RD
+IO<A7>A6<A5>A4<A3>RD

IF(TSE) WRITE.MI:=IO<A7>A6<A5>A4<A3>RD
+IO<A7>A6<A5>A4<A3>RD

IF(TSE) SEL.TIMER:=IO<A7>A6<A5>A4<A3>RD
+IO<A7>A6<A5>A4<A3>RD

IF(TSE) DIR:=IO<A7>A6<A5>A4<A3>RD
+IO<A7>A6<A5>A4<A3>RD
```

PART NUMBER: 23-024K3-00
DEVICE TYPE: PAL16R4
SCHEMATIC SHEET #10-CS-1-88394-0-WCSJ
LOCATION/DESCRIPTION: E38 MEMORY REFRESH CONTROL AND SEQUENCER
ASSIGNED PIN NUMBER:

1= REGISTER.CLK	8= INHIBIT.REFRESH	15= REFR.PENDING
2= ALLOW.REFR.CYC	9= REFR.REQUEST	16= STATE
3= PRELOAD	10= GROUND	17= RAS
4= 9500.BAUD	11= REQ.OUT.EN	18= TERM.BAUD
5= 2400.BAUD	12= BAUD.SEL.0	19= START.REFR.CYC
6= 1200.BAUD	13= BAUD.SEL.1	20= V
7= 300.BAUD	14= REFR.CYCLE	

EQUATIONS:

```
IF(VCC) START.REFR.CYC:=REFR.PENDING*ALLOW.REFR.CYC
+STATE
+REFR.CYCLE

STATE:=REFR.PENDING*REFR.CYCLE*STATE*ALLOW.REFR.CYC*PRELOAD
+REFR.PENDING*RAS*PRELOAD
+PRELOAD*ALLOW.REFR.CYC

REFR.PENDING:=REFR.REQUEST*REFR.PENDING*REFR.CYCLE
+INHIBIT.REFRESH*PRELOAD
+REFR.PENDING/RAS*PRELOAD
+PRELOAD*INHIBIT.REFRESH

REFR.CYCLE:=REFR.PENDING/RAS*PRELOAD
+REFR.CYCLE*STATE*PRELOAD
+PRELOAD*REFR.REQUEST

RAS:=REFR.PENDING*STATE*PRELOAD
+REFR.CYCLE*PRELOAD
+PRELOAD*BAUD.SEL.0

IF(VCC) TERM.BAUD:=BAUD.SEL.1*BAUD.SEL.0*300.BAUD
+BAUD.SEL.1*BAUD.SEL.0*1200.BAUD
+BAUD.SEL.1*BAUD.SEL.0*2400.BAUD
+BAUD.SEL.1*BAUD.SEL.0*9500.BAUD
```

PART NUMBER: 23-004K4-00
DEVICE TYPE: PAL16R6
SCHEMATIC SHEET #10-CS-1-88394-0-WCSJ
LOCATION/DESCRIPTION: E39 MICRO PROCESSOR DYNAMIC RAM CONTROLLER
ASSIGNED PIN NUMBER:

1= CLOCK	8= NC	15= STATE
2= ALE	9= RESET	16= RAS
3= REQUEST.REFR	10= GROUND	17= REFRESH.DONE
4= IO	11= OUT.EN	18= START.0005.CYC
5= A14	12= UART.CHIP.SEL	19= LONG.CYCLE
6= NC	13= UART.ENA	20= VCC
7= NC	14= REFRESH.CYC	

EQUATIONS:

```
START.0005.CYC:=ALE
+REFRESH.CYC*START.0005.CYC*A14

RAS:=RAS*REFRESH.CYC
+RAS*STATE
+START.0005.CYC/RAS*IO*A14
+RESET

STATE:=START.0005.CYC
+RAS
+A14

REFRESH.CYC:=START.0005.CYC
+RAS*REFRESH.CYC
+RAS*STATE
+REFRESH.CYC*REQUEST.REFR
+REFRESH.CYC*REFRESH.DONE
+REFRESH.CYC/RAS*ALE*STATE
+UART.ENA
+RESET

REFRESH.DONE:=REQUEST.REFR
+REFRESH.DONE/REFRESH.CYC

IF(VCC) LONG.CYCLE:=START.0005.CYC*A14

IF(VCC) UART.CHIP.SEL:=START.0005.CYC*IO*A14/RAS
+RAS*STATE

UART.ENA:=START.0005.CYC*IO*A14/RAS
+RAS*STATE
```

23-045J5-00
23-024K3-00
23-012K7-00

REVISIONS	
CHK	CHANGE NO. REV

digital	DATE	DATE	DATE	TITLE: WCS ROM AND PAL LISTINGS	
	10-11-81	10-11-81	10-11-81	SIZE CODE	NUMBER
DSK1:0,CS81,12K11185,12K11185-0FC-81 10123	DATE	DATE	DATE	0 GL	M8394-0-0
FIRST USED ON OPTION MODEL: 117739		NEXT HIGHER ASSEMBLY		REV. A	

PART NUMBER: 23-002K5-00
 DEVICE TYPE: PAL16R8
 SCHEMATIC SHEET #D-CS-M3394-0-MCSE
 LOCATION/DESCRIPTION: EPM/ CLOCK CONTROL AND SINGLE STEP
 ASSIGNED PIN NUMBER:
 1= REGISTER.CLOCK.H 8= REFR.REQ 15= P0
 2= STALL 9= RESET 16= P1
 3= CSPE 10= GROUND 17= PAR.ERR
 4= CPU.RUN 11= REG.OUT.EN.L 18= MAIN.MEN.REFR.REQ
 5= CSR.STEP 12= CLK.CSR 19= WAIT
 6= UPC.STEP 13= CLK.CPU 20= VCC
 7= CPU.STEP 14= CLK.UPC

EQUATIONS:
 WAIT = CSR.STEP + CLK.CSR
 + WAIT + CSR.STEP
 + UPC.STEP + CLK.UPC
 + WAIT + UPC.STEP
 + CPU.STEP + CLK.CPU
 + WAIT + CPU.STEP
 + RESET
 MAIN.MEN.REFR.REQ = REFR.REQ + P0 + P1
 PAR.ERR = P0 + PAR.ERR
 + P1 + PAR.ERR
 + P0 + P1 + CSPE
 + RESET
 P1 = P0
 + RESET
 P0 = P0 + P1
 + RESET
 CLK.UPC = P1
 + STALL + CPU.RUN
 + STALL + CPU.STEP
 + REFR.REQ
 + CPU.RUN + UPC.STEP + CPU.STEP
 + CPU.RUN + WAIT
 + RESET
 CLK.CPU = P1
 + STALL
 + REFR.REQ
 + CPU.RUN + CPU.STEP
 + CPU.RUN + WAIT
 + RESET
 CLK.CSR = P1
 + STALL + CPU.RUN
 + STALL + CPU.STEP
 + REFR.REQ
 + CPU.RUN + CSR.STEP + CPU.STEP
 + CPU.RUN + WAIT
 + RESET

23-002K5-00

8

8

DEC 5014439-0-0

6

5

LAYER 1

3

2

THIS DRAWING AND PHOTO COPY ARE HEREIN MADE THE PROPERTY OF THE U.S. GOVERNMENT. IT IS TO BE REPRODUCED IN WHOLE OR IN PART AS THE U.S. GOVERNMENT'S PROPERTY.

CS*ABCDEFGHIJKLMNPRS

C013 E150

E137

E123

E109

E96

E82

E68

SIDE 1

digital

J3

J2

J1

M8394

5014439A

I-8

I-9

I-2

I-4

I-5

I-6

I-7

REV	B
ECO NUMBER	14001
DATE	10-1-82
BY	DAY
CHKD	DAY
APP'D	DAY

DATE	10-1-82	TITLE	digital
DATE	10-1-82	ETCH CUT DRAWING	
DATE	10-1-82	DOCUMENT NUMBER	DEC 5014439-0-0 B
DATE	10-1-82		

8

7

6

5

4

3

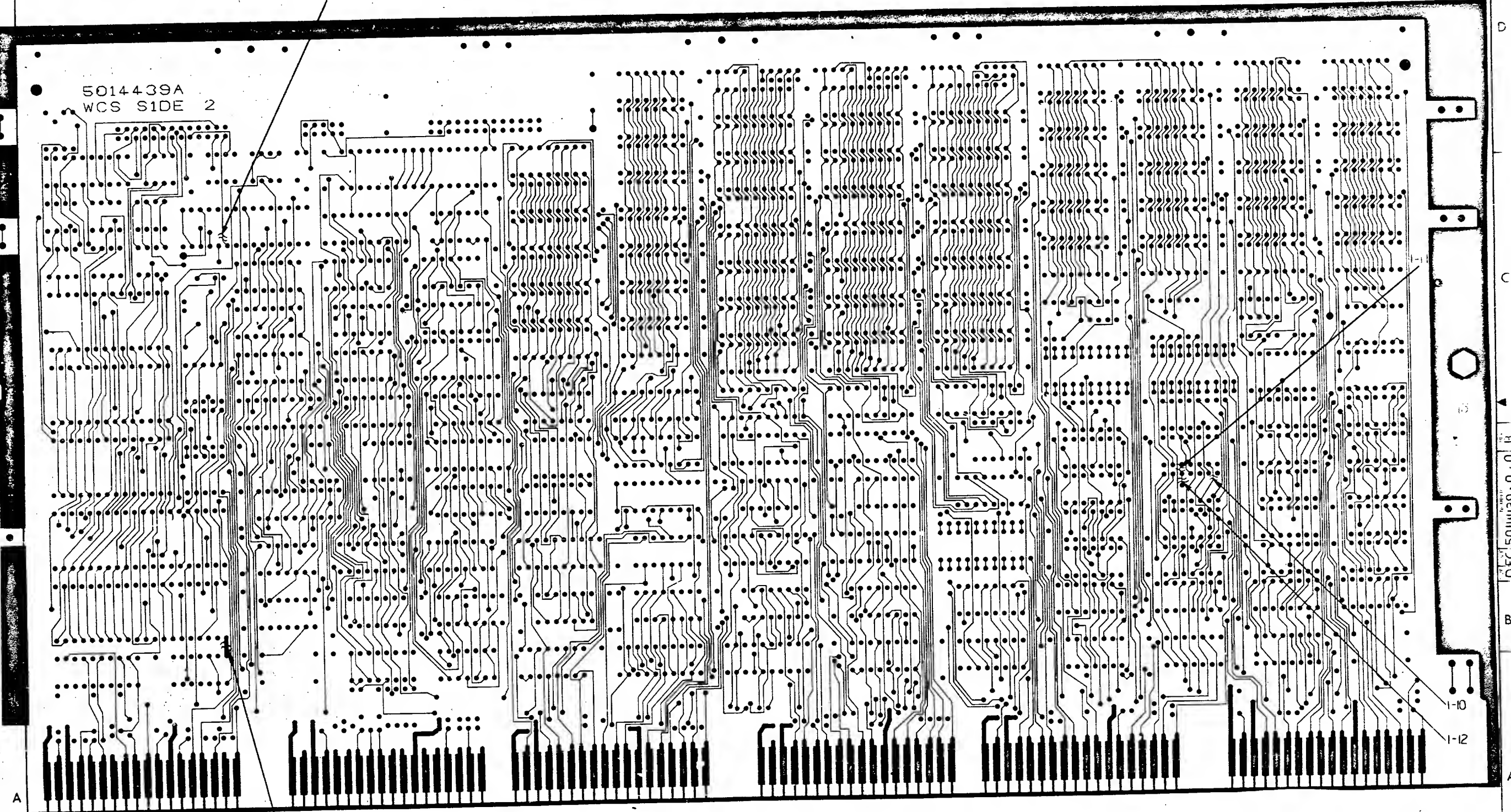
2

1

1980
100-0-644439-0-0
100-0-644439-0-0

834AJ

5014439A
WCS SIDE 2



REVISION HISTORY			DOCUMENT NUMBER	
DATE	ECO NUMBER	REV	DEC 5014439-0-0	B
			E 2-1	SHEET 2 OF 3

ETCH CUT DRAWING

TU

8

8 0-0-664439-0-0

6

5

4

3

2

1

THIS DRAWING AND SPECIFICATIONS HEREON ARE THE
PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND
SHALL NOT BE REPRODUCED OR COPIED IN WHOLE
OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE
OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT ©
DIGITAL EQUIPMENT CORPORATION

REWORK INSTRUCTIONS

ECO #1

ETCH CUTS SIDE 1:

- 1-1 NEAR E154-01 GOING FROM E154-01
TO E153-12.
- 1-2 BETWEEN E85-09 GOING TO E85-10.
- 1-3 NEAR E21-11 GOING FROM E21-11
TO E19-01.
- 1-4 BETWEEN E47-07 GOING TO E47-08.
- 1-5 NEAR PTH TO THE LEFT OF R66
SEPARATING ETCH FROM E38-01
AND E19-19.
- 1-6 DRILL OUT PTH AT E17-14.
- 1-7 DRILL OUT PTH AT E16-4.
- 1-8 BETWEEN E4-09 GOING TO E4-10.
- 1-9 BETWEEN E4-09 GOING TO E4-06.

ETCH CUTS SIDE 2

- 1-10 NEAR E129-02 GOING FROM E129-02
TO E128-03.
- 1-11 BETWEEN E128-10 GOING TO E129-05.
- 1-12 BETWEEN E128-10 AND PTH GOING
TO E86-03.
- 1-13 NEAR BOTTOM OF R94 GOING TO
J1-26.
- 1-14 BETWEEN E3-01 GOING TO E2-14.

REVISION HISTORY

DATE	ECO NUMBER	REV.

TITLE
ETCH CUT DRAWING

DOCUMENT NUMBER		
SIZE CODE	NUMBER	REV.
DEC	5014439-0-0	B
SCALE	NONE	SHEET 3 OF 3

8

7

6

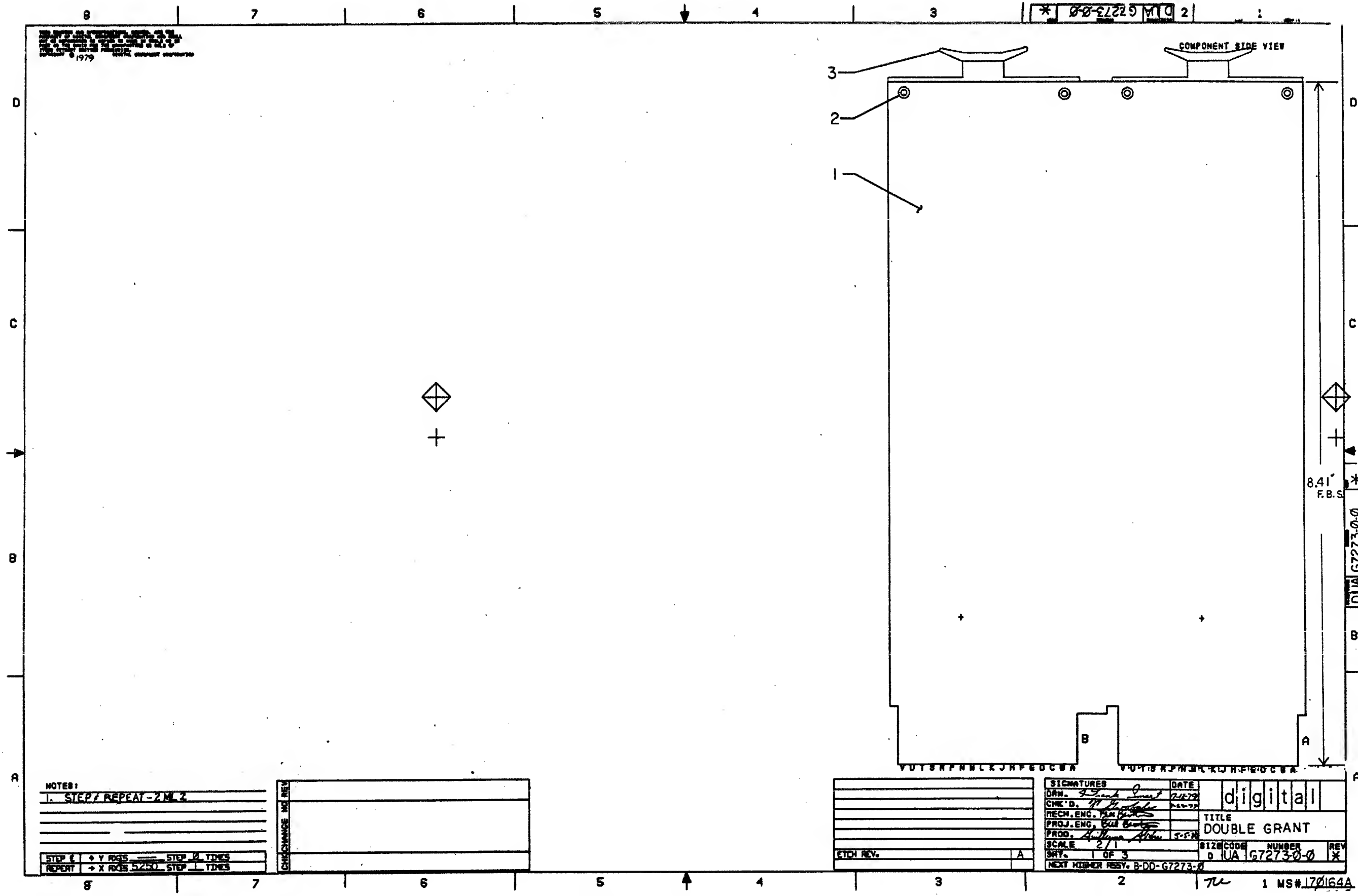
5

4

3

2

1



NOTES:
1. STEP 7 REPEAT - 2 M 2
STEP 6 + Y AXIS STEP 0 TIMES
REPEAT + X AXIS 5250 STEP 1 TIMES

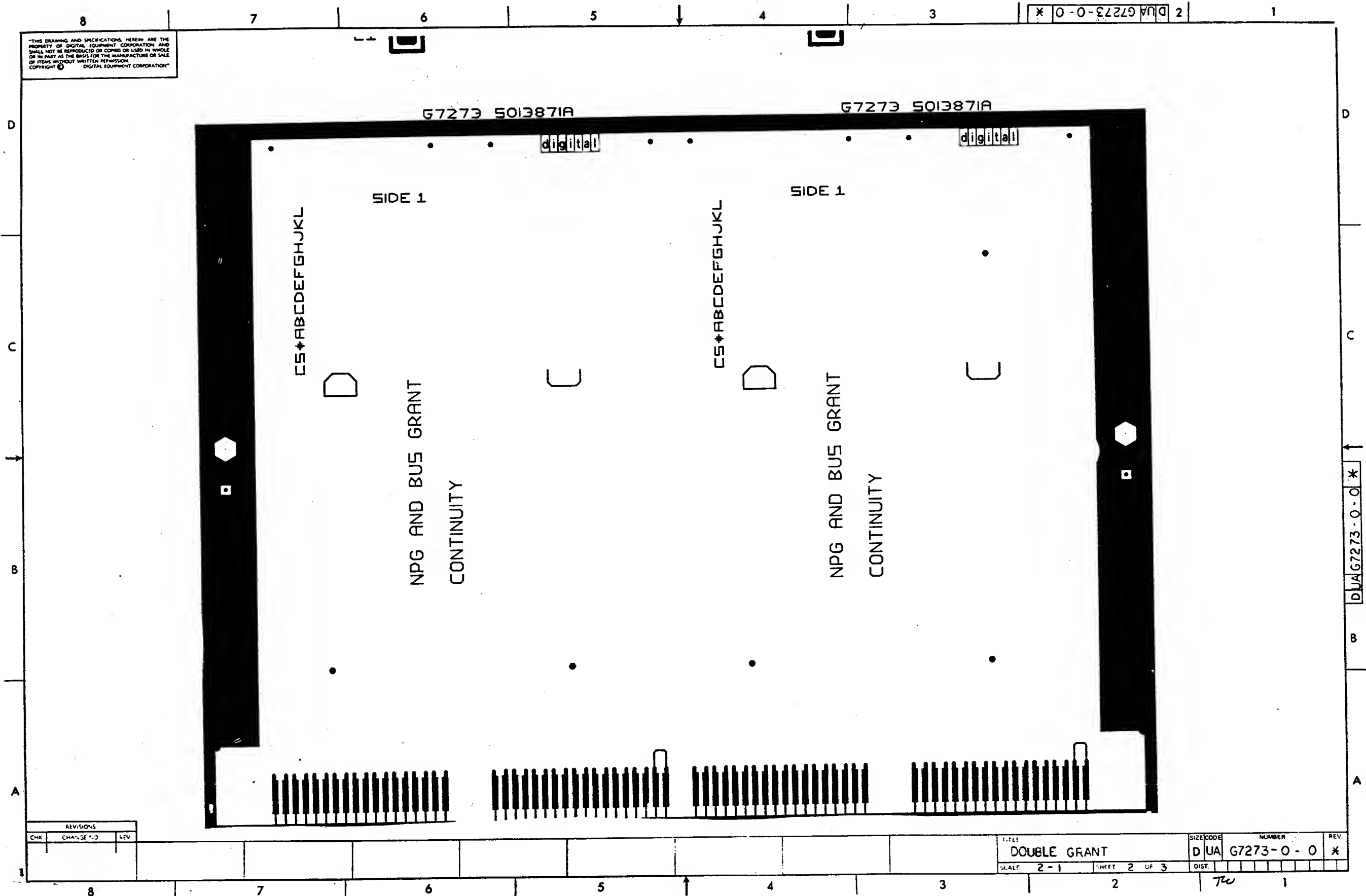
CHECK CHANGE NO	REV

ETCH REV.	A

SIGNATURES		DATE
DAN. 29th June 1979		2/8/79
CHK'D. M. G. 2/8/79		2-8-79
REC'D. ENG. M. G. 2/8/79		
PROJ. ENG. M. G. 2/8/79		
PROD. M. G. 2/8/79		
SCALE 2/1		
DWT. 1 OF 3		
NEXT NUMBER REPLY: B-DD-G7273-0		

TITLE	
DOUBLE GRANT	
SIZE CODE	NUMBER
0 UA	G7273-0-0
REV	
X	

"THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"



REVISIONS		
CNK	CHANGE TO	REV
1		

TITLE		SIZE CODE	NUMBER	REV.
DOUBLE GRANT		D UA	G7273-0-0	*
SCALE	2-1	SHEET	2 OF 3	DIST.

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION

DUA67273-0-0 X 2

L4

L4

5013871A
67273

SIDE 2

5013871A
67273

SIDE 2

DOUBLE GRANT

DOUBLE GRANT

UAG7273-0-0 X

REVISIONS		
CHK	CHANGE NO.	REV

TITLE		SIZE CODE		NUMBER	
DOUBLE GRANT		DUA		G7273-0-0 X	
SCALE		SHEET		DIST.	
2-1		3 OF 3			

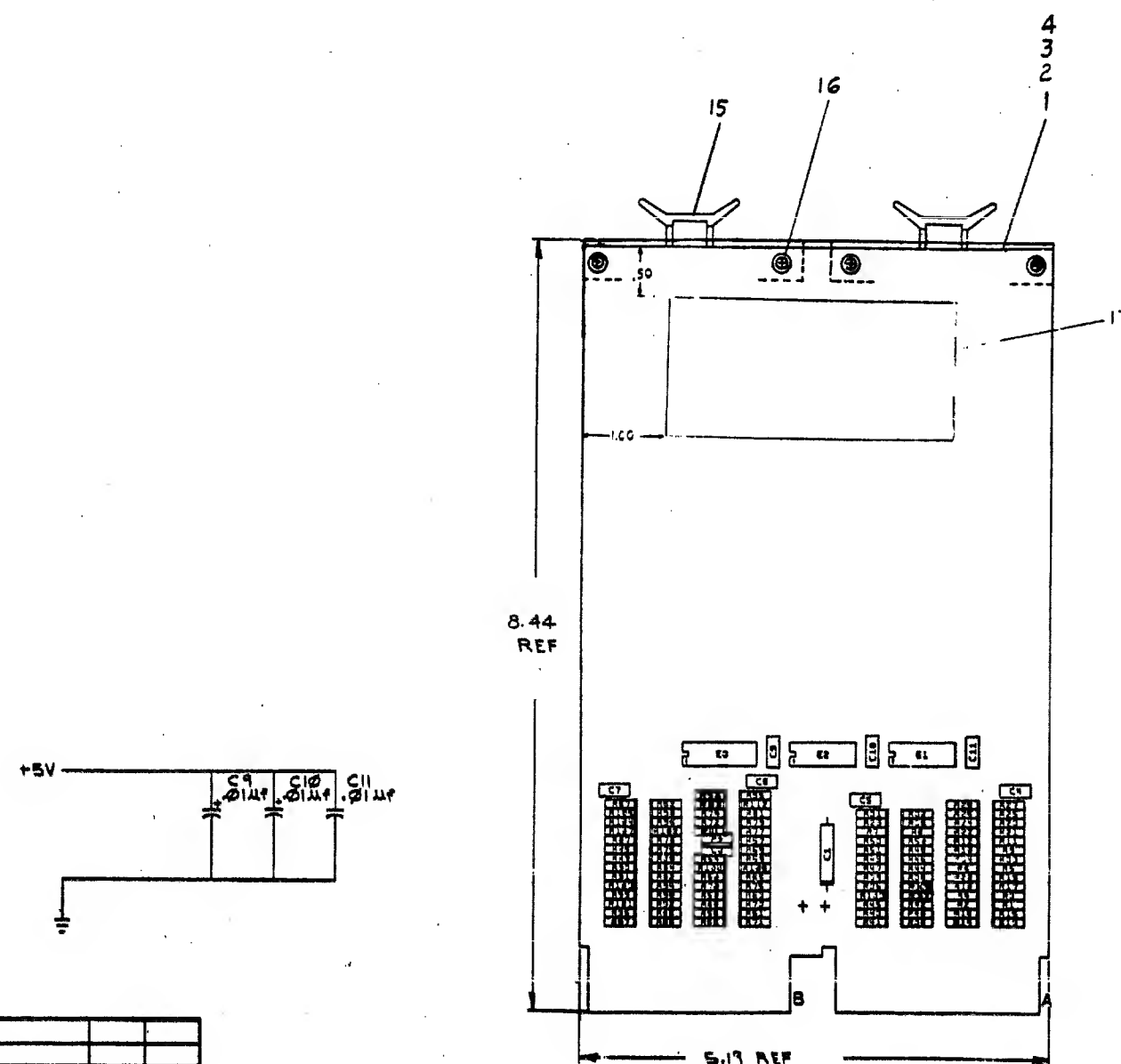
TL

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY	PFR VARIATION
1	1	D-MD-5013871-0-0	5013871-00	(11/24) BOARD FOR G7273	1
2	2		9006732-00	FYFLEF, ROLLED FLANGE, .121 OD X	4
3	3		9008337-01	HANDLE, FLIP CHIP, GREEN	2

REVISION HISTORY			BASIC PART NO: G7273		DRN: F.SMART		DATE: 18-JUL-79		D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A		CHK'D: F.GAPOFALO		DATE: 18-JUL-79		TITLE PARTS LIST			
---	INITIAL	*	SECTION, VARIATION INDEX						DOUBLE GRANT			
			[A] 00									
			[B]		DES.ENG.: R.GRUDA		DATE: 5-MAY-80					
			[C]						DOCUMENT NUMBER			
			[D]		RESP.ENG.: P.GRUDA		DATE: 5-MAY-80		SIZE CODE NUMBER REV			
			[E]		MFG.ENG.: G.ABREU		DATE: 5-MAY-80		K	PL	G7273-0-DBP	*
			[F]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME:		EDIT #	
					ID-UA-G7273-0-0		B-DD-G7273-0-0		Z1264.PLS		4	
THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1980, DIGITAL EQUIPMENT CORPORATION												

TW

NOTES:
1.) THE FOLLOWING REFERENCE
DESIGNATIONS ARE NOT USED:
CG, R64, AND R110.



REF		X-Y HOLE COORDINATE HOLE LOCATION	K-CO-W4302 0-5	1
REF		ASSY DRILLING HOLE LAYOUT	0-AH-W4302 0-5	2
				3
1		ETCHED CIRCUIT BOARD	5011311	4
3	C9, C10, C11	CAP .01 uf 100V 20% DISC	1001810-01	5
1	C1	CAP 39 uf 10V 10%	1000076	6
1	C2	CAP 0.01 uf 35V 10%	1005209	7
4	C4 THRU C7	CAP 22 uf 50V 1%	1010274-01	8
2	C2, C3	CAP .001 uf 250V 20% DISC	1000043	9
56	R2, R4, R8, R9, R10, R12, R14, R19, R19, R20, R22, R24, R28, R28, R30, R32, R34, R38, R39, R40, R42, R44, R48, R48, R50, R54, R56, R58, R60, R62, R68, R69, R70, R72, R74, R78, R78, R80, R82, R84, R86, R88, R90, R92, R94, R98, R98, R100, R102, R57, R68, R37, R52, R53, R108, R111	RES 220 OHM 1/4W 5%	1300271	10
54	R1, R3, R5, R7, R9, R11, R13, R15, R17, R19, R21, R23, R25, R27, R29, R31, R33, R35, R39, R41, R43, R45, R47, R49, R51, R53, R55, R59, R61, R63, R65, R67, R71, R73, R75, R77, R79, R81, R85, R87, R89, R91, R93, R95, R97, R99, R101, R103 THRU R107, R109, R112	RES 15 OHM 1/4W 5%	1300250	11
1	E2	1 C DEC 7430	1905578	12
1	E1	1 C DEC 8881	1909705	13
1	E3	1 C DEC 8837	191111A	14
2		HANDLE, FLIP-CHIP (MAGENTA)	9008337-6	15
4		EYELETS	9006732	16
1		DECAL	A-20-74679-CG	17

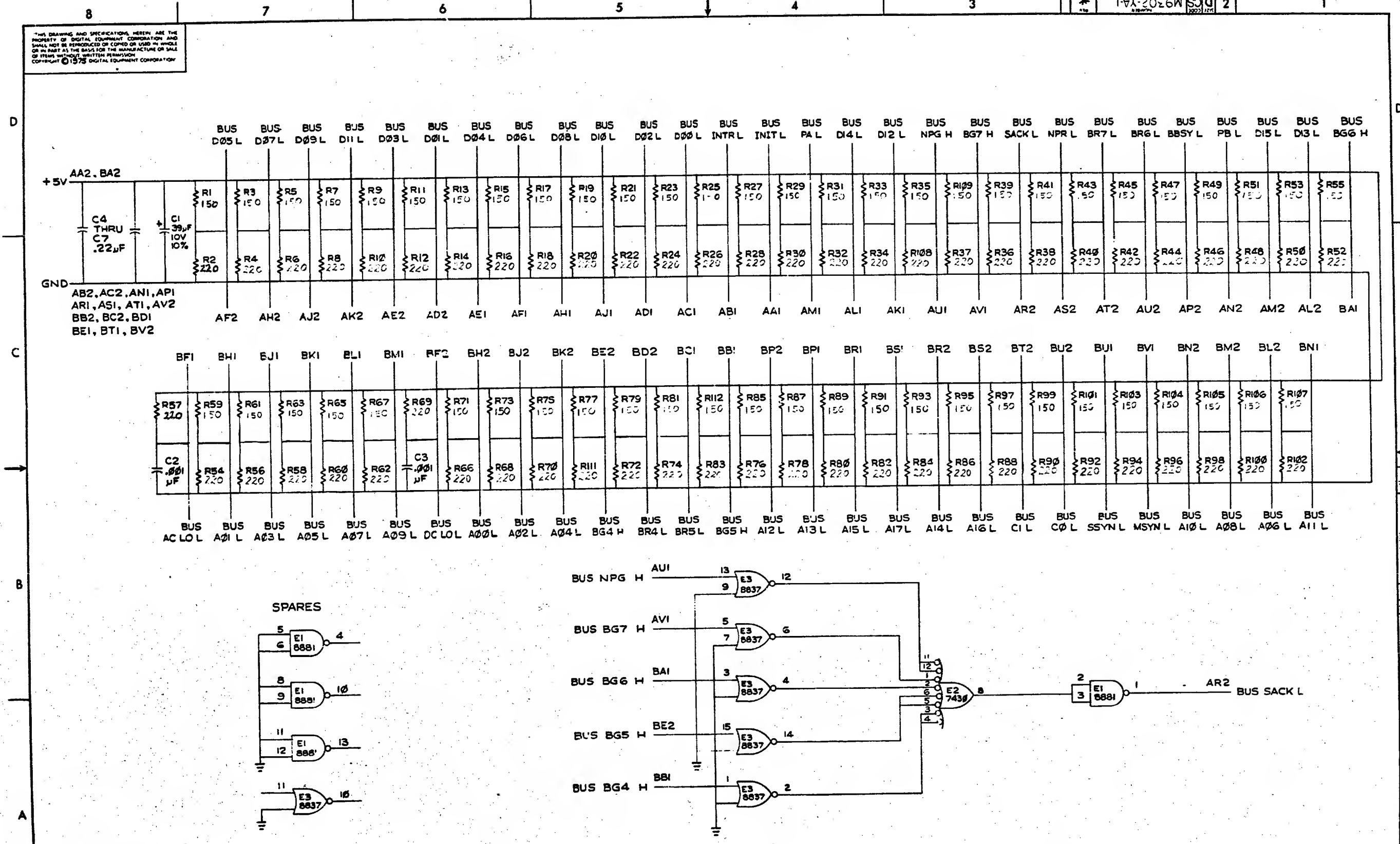
QTY	REF DESIGNATION	DESCRIPTION	PART NO	ITEM NO
PARTS LIST				
ETCH BOARD REV	8			
		606P 158/76 706P 9/7/76 606P 6/28/76 706P 6/28/76 J. M. H. Co. 76 NEXT HIGHER ASSY	<div style="border: 1px solid black; padding: 5px;">digital EQUIPMENT CORPORATION</div> <small>DIVISION OF GENERAL ELECTRIC</small> TITLE <h2>UNIBUS TERMINATOR</h2>	
- DEC NO.	EIA NO	SCALE	SPEC CODE	NUMBER
R CONVERSION CHART		SHEET OF 2	DCS M9302YA-1	REV *
			DIST	

IC D.C. CODE	B	I6
IC TYPE	GND	+BV

ONE AND BV ARE USUALLY PIN 7 AND I6 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE

IC PIN LOCATIONS

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1975 DIGITAL EQUIPMENT CORPORATION



REVISIONS										TITLE		SIZE/CODE	NUMBER	REV.
CHK	CHANGE NO.	REV.								UNIBUS TERMINATOR	DCS	M9302-YA-1	*	
										SCALE	SHEET 2 OF 2	DIST.		

"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN."

DRAWING DIRECTORY

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION.

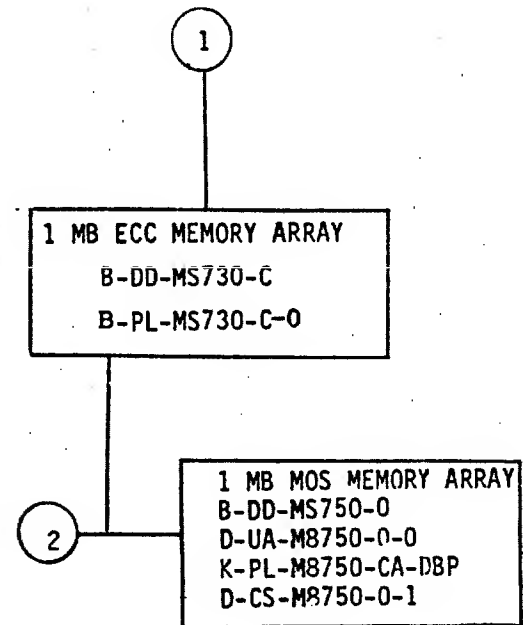
[illegible]

	REV.	
REVISIONS	CHANGE NO.	
CHK		

USED ON OPTION/MODEL	DRN.	DATE	TITLE
11730	A. ROCHA	13APR82	<div style="text-align:center;">digital</div> 1 MB 64K ECC MEMORY ARRAY
	CHK'D. <i>P.P.Horin</i>	DATE 20 APR 82	
	PROJ. ENG. <i>D.M. Landry</i>	DATE 20 APR 82	
	PROD. <i>S.A. Castyline</i>	DATE 21 APR 82	
SHEET 1 OF 3			

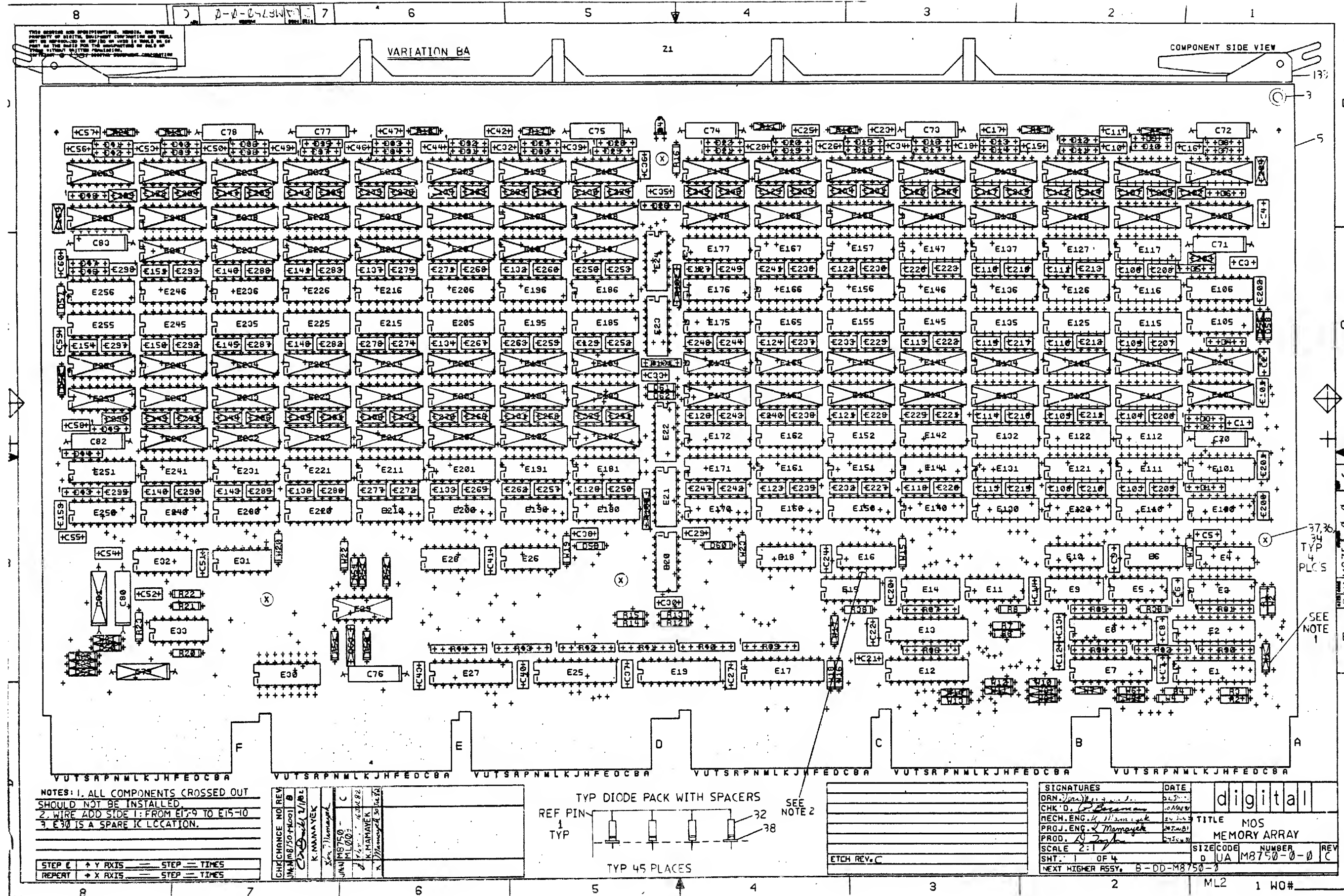
SIZE B	CODE DD	NUMBER MS730-C	REV A
DIST.			

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
1982
COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"

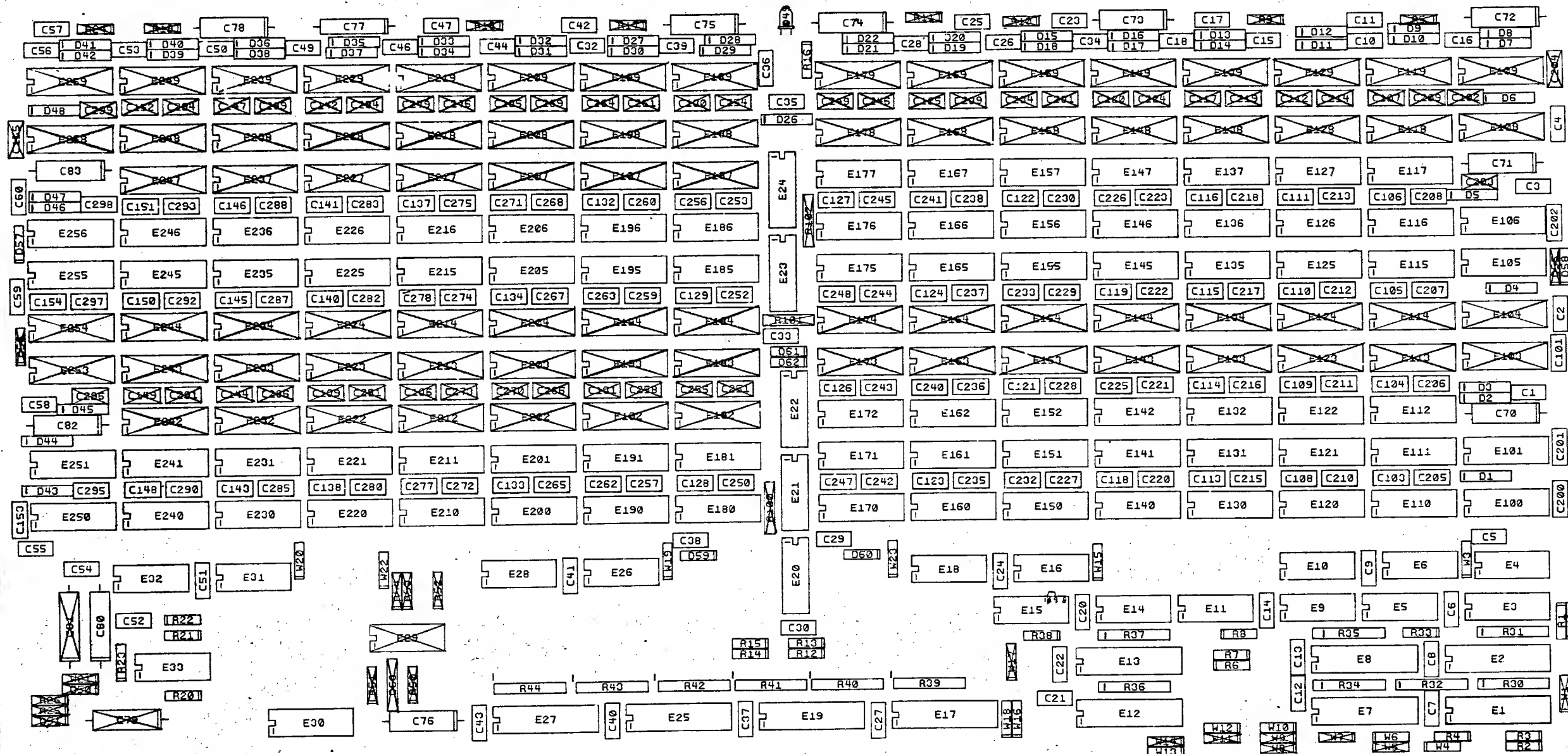


TITLE	1 MB 64K ECC MEMORY ARRAY	SHEET 2 OF 3	SIZECODE	NUMBER	REV
			B DD	MS730-C	1

DIGITAL EQUIPMENT CORPORATION PARTS LIST				QUANTITY / VARIATION										NOTES:				
MADE BY DATE A.ROCHA 13APR82		CHECKED <i>RP Morin</i> DATE 20 APR 82		SECTION		MS730-CA	MS730-CB	MS730-CC	MS730-CD	MS730-CF								
ENG <i>RP Morin</i> DATE 20 APR 82		PROD <i>SA Casty</i> DATE 21 APR 82		ISSUED SECTION														
ITEM NO.	DRAWING NO.	PART NO.	DESCRIPTION															REF DESIGNATION
1	B-DD-M8750-0	M8750-CA	1 MB ARRAY MOS MEMORY	1	2	3	4	10										
E.C.O. NO.																		
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © DIGITAL EQUIPMENT CORPORATION"				TITLE 1 MB 64K ECC MEMORY ARRAY				ASSY NO. B-DD-MS730-C				SIZE B	CODE PL	NUMBER MS730-C-0		REV. A		
				SHEET 1 OF 1				INSERTION PARTS LIST DATA BASE REV										



VARIATION BA

SEE
NOTE

1

1

1

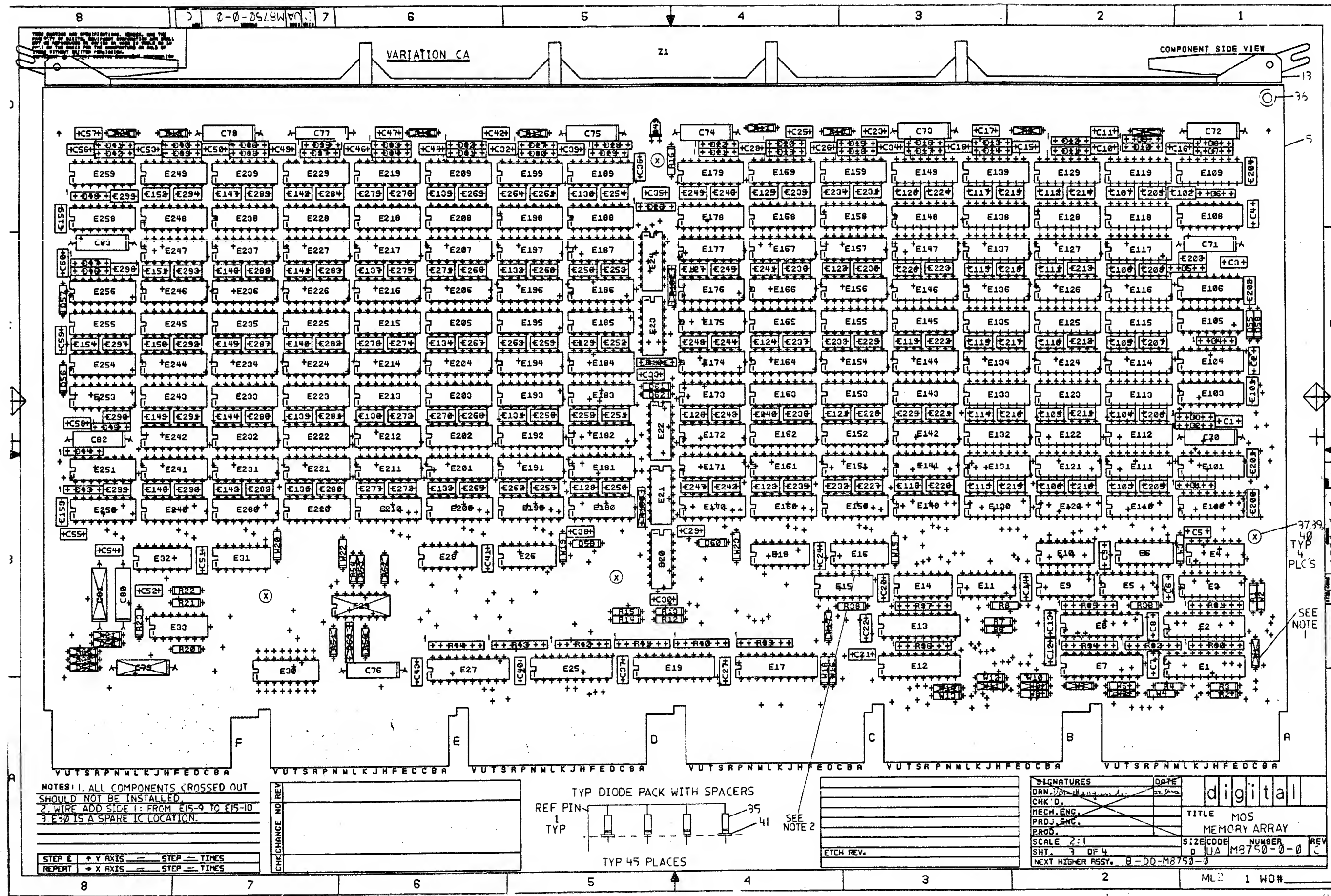
NOTES: ALL COMPONENTS CROSSED OUT
SHOULD NOT BE INSTALLED.
2. WIRE-ADD SIDE 1:
FROM E15-9 TO E15-10
3. E30 IS A SPARE LOCATION.

STEP E	↑ Y AXIS _____ STEP _____ TIMES
REPEAT	→ X AXIS _____ STEP _____ TIMES

CHK	CHANGE	NO	REV
-----	--------	----	-----

SIGNATURES		DATE	digital			
DRN. <i>D. Mangaudia</i>		19 JAN 81				
CHK'D.						
MECH. ENG.			TITLE MOS			
PROJ. ENG.			MEMORY ARRAY			
PROD.						
SCALE 2:1		SIZE	CODE	NUMBER		RE
SHT. 2 OF 4		0	UA	M8750-0-0		C
NEXT HIGHER ASSY. B-DD-M8750-0						

ML2 1 WO#



NOTES: 1. ALL COMPONENTS CROSSED OUT SHOULD NOT BE INSTALLED.
2. WIRE ADD SIDE 1: FROM E15-9 TO E15-10
3. E30 IS A SPARE IC LOCATION.

STEP 1 → Y AXIS — STEP — TIMES
REPEAT → X AXIS — STEP — TIMES

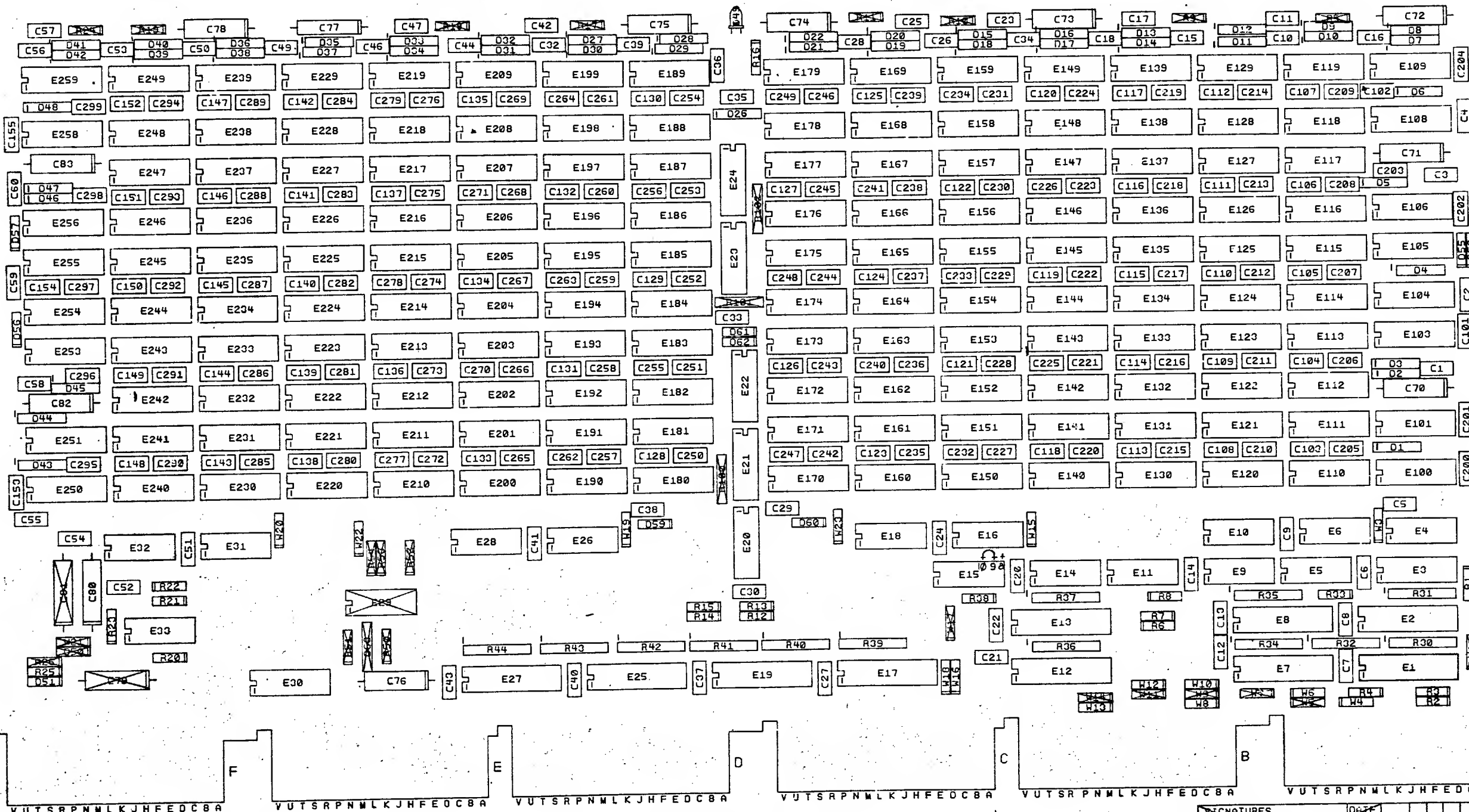
TYP DIODE PACK WITH SPACERS
REF PIN
TYP
TYP 45 PLACES
SEE NOTE 2

SIGNATURES	DATE
DRN. <i>[Signature]</i>	22 Jan 71
CHK'D.	
MECH. ENG.	
PROJ. ENG.	
PROD.	
SCALE 2:1	
SHT. 3 OF 4	
NEXT HIGHER ASSY. B-DD-M8750-3	

TITLE MOS MEMORY ARRAY
DUA M8750-0-0
REV 1 W0#

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART, NOR THE RIGHT OF THE MANUFACTURE OR SALE OF THEREAFTER WITHOUT PERMISSION OF DIGITAL EQUIPMENT CORPORATION.

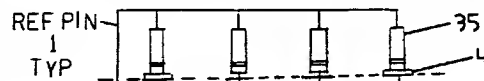
VARIATION CA



NOTES:
1. ALL COMPONENTS CROSSED OUT SHOULD NOT BE INSTALLED.
2. WIRE ADD SIDE 1: FROM E15-9 TO 15-10
3. E30 IS A SPARE IC LOCATION.

STEP E → Y AXIS — STEP — TIMES
REPEAT → X AXIS — STEP — TIMES

TYP DIODE PACK WITH SPACERS



TYP 45 PLACES

SIGNATURES		DATE
ORN.		
CHK'D.		
MECH. ENG.		
PROJ. ENG.		
PROD.		
SCALE 2/1	SIZE CODE NUMBER REV	
SHT. 4 OF 4	0 UA M8750-0-0 C	
NEXT HIGHER ASSY. B-DD-M8750-0		

ML2 1 WNH

AUTOMATED BY PRTLST.3P(44)

P A R T S L I S T

SHEET A1 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER	CD	CH	VARIATION	REFERENCE DESIGNATOR
					CB					
1	1	D-UA-M8750-0-0		UNIT ASSEMBLY	REF	REF	REF			
2	2	D-CS-M8750-0-1		CIRCUIT SCHEMATIC	REF	REF	REF			
3	3	D-MD-5013706-0-0		DRILL & ETCH DRAWING	REF	REF	REF			
4	4	B-DD-M8750-0		DRAWING DIRECTORY	REF	REF	REF			
5	5		5013706-00	DRILL+ETCH MEMORY	1	1	1			
6	6	SPARE IC		SPARE IC	1	1	1			E30
7	7		1001610-00	.01 MFD 50V +80-20% Z5U CER	47	47	47			C1-C10, C12-C16, C18, C20-C24, C27-C30, C32-C41, C43, C44, C46, C49, C51, C53-C56, C58-C60
									CONT	C101-C155, C11, C17, C25, C26, C42, C52, C47, C200-C299, C50, C57
8	8		1010274-00	.22 MFD 50V +80-20% Z5U CER	164	164	164			C70-C78, C80, C82, C83
									CONT	D55-D62
9	9		1012084-01	8 MFD 25V +75-10% AL EL	12	12	12			
10	10		1105275-00	D 672 TR= 15NS PIV= 60V SI	8	8	8			
11	11		1109991-00	*** THIS ITEM IS NOT USED ***	-	-	-			
12	12		1114384-00	LED 105MW 35MA GREEN	1	1	1			D49
13	13		1216988-02	HANDLE, MODULE HEX TWO EJECTORS	1	1	1			
14	14		1300309-00	390.0 .25 W 5.0 % CC	1	1	1			R20
15	15		1300365-00	1.0 K .25 W 5.0 % CC	1	1	1			R22
16	16		1301317-00	10.0 .25 W 5.0 % CC	2	2	2			R21, R23
17	17		1301972-00	270.0 .25 W 5.0 % CC	1	1	1			R16
18	18		1302124-00	18.0 .25 W 5.0 % CC	2	2	2			R33, R38
19	19		1302177-00	47.0 K .25 W 5.0 % CC	11	11	11			R1-R4, R6-R8, R12-R15
20	20		1315678-00	R NETWORK 3-18 5.0 % 7PIN	13	13	13			R30-R32, R34-R37, R39-R44
21	21		1513265-00	3725 QUAD CORE DRIVER	1	1	1			E33
22	22		1910091-00	DEC 7437 AND GATE-QUAD 2IN, 6U	2	2	2			E15, E20
23	23		1910532-00	74500 NAND GATE-QUAD 2IN	1	1	1			E22
24	24		1910534-00	74504 INVERTER GATE-HEX 11	1	1	1			E11
25	25		1911676-00	745139 DECODER-DUAL TWO-INP	1	1	1			E3
26	26		1912068-00	74128 DRIVER LINE, QUAD, 50	1	1	1			E14
27	27		1912388-00	74502 NOR GATE-QUAD 2IN, 6U	2	2	2			E5, E9

REVISION HISTORY			BASIC PART NO: M8750		DRN: K. CROUSE		DATE: 13-JAN-81		D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A		CHK'D: P. BOSSMAN		DATE: 4-FEB-81		TITLE PARTS LIST			
	INITIAL	A	SECTION VARIATION INDEX						MOS MEMORY ARRAY			
			[A]	CB, CD, CH								
			[B]		DES. ENG: K. MAMAYEK		DATE: 13-JAN-81					
			[C]		RESP. ENG.: K. MAMAYEK		DATE: 13-JAN-81		DOCUMENT NUMBER			
			[D]						SIZE CODE NUMBER REV			
			[E]		MFG. ENG.: D. TAYLOR		DATE: 13-JAN-81		K	PL	M8750-CA-DBP	A
			[F]		ASSEMBLY NUMBER:		TOP DOCUMENT NUMBER:		FILE NAME: EDIT #			
			[G]		D-UA-M8750-0-0		#B-DD-M8750-0		Z2111A.PLS 15			
			[H]									
			[I]									
			[J]									
			[K]									
			[L]									
			[M]									
			[N]									

"THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION"

AUTOMATED BY PRTLST.3P(44)

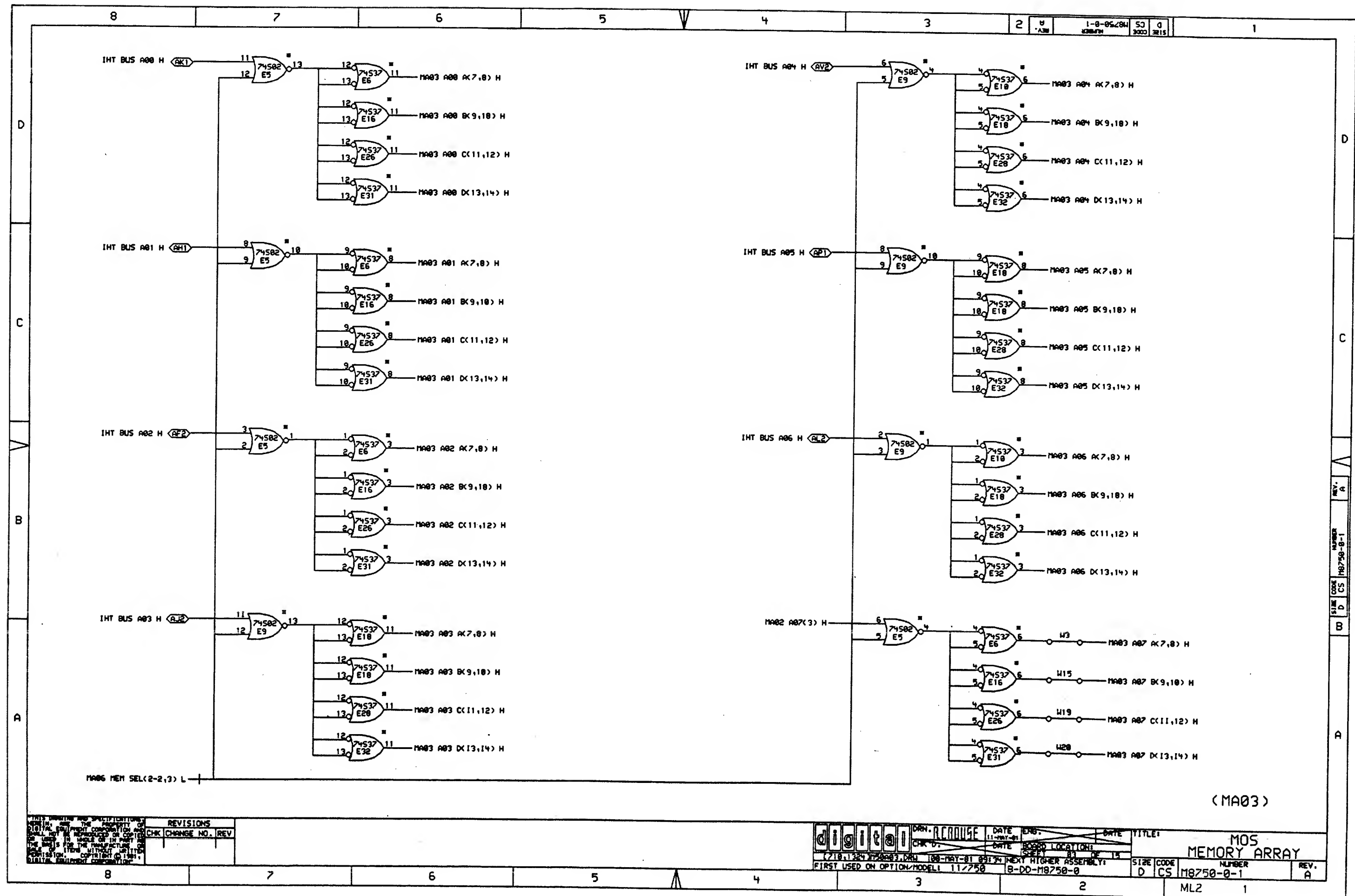
PARTS LIST

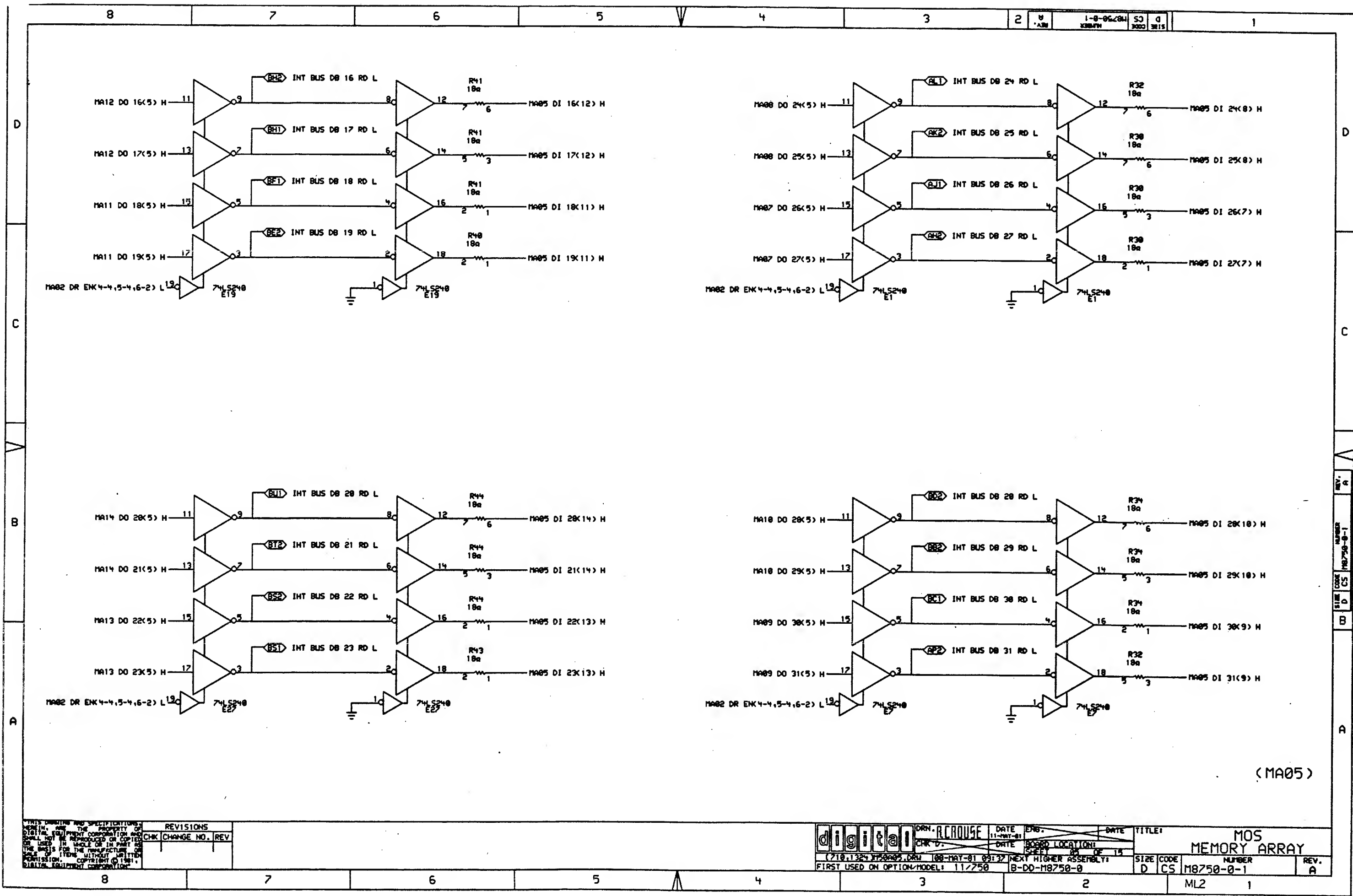
SHEET A2 OF A2

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QTY	PER	CD	CH	REFERENCE DESIGNATOR
28	28		1912389-00	74508 AND GATE-QUAD 2IN,PO	1	1	1		E4
29	29		1912746-00	DEC 74537 NAND GATE-QUAD 2IN	11	11	11		E6,E10,E16,E18,E21,E23,E24,E26, E28,E31,E32
30	30		1913777-00	LS240 DRIVER,LINE,OCTAL,T	10	10	10	CONT	E1,E2,E7,E8,E12,E13,E17,E19,E25, E27
31	31		2113825-01	*** THIS ITEM IS NOT USED ***	-	-	-		
32	32		2118467-01	8264-20 RAM 64K X1,200NS 1	-	156	-	CONT	E100,E101,E103-E106,E108-E251, E253-E256,E258,E259
33	33		2118472-01	4164-2 MOS RAM 64K X1,200	-	-	156	CONT	E100,E101,E103-E106,E108-E251, E253-E256,E258,E259
34	34		2118470-01	4864-1 MOS RAM 64K X1,200	156	-	-	CONT	E100,E101,E103-E106,E108-E251, E253-E256,E258,E259
35	35		7010918-01	DIODE STICK G652	45	45	45		D1-D22,D26-D48
36	36		9000024-01	EYELET,ROLL FLANGE .1210DX .192	12	12	12		
37	37		9006968-00	SPACER, FIBER, RND, 4-40, .250 X	4	4	4		
38	38		9009185-00	JUMPER, WIRE, INSULATED, BLACK B	15	15	15	CONT	W2-W4,W5,W8,W10,W12,W13,W15,W16, W18-W20,W22,W23
39	39		9009233-04	SCREW, NYLON, SLTD BINDER HD, 4-	4	4	4		
40	40		9009321-00	LOCK TITE, SCREW LOCK, 1000 PER	4	4	4		
41	41		9107771-00	TUBING,STAD WALL,.04CID UL	90	90	90		

- 42 NOTE: M8750-CA IS THE PRIMARY VARIATION 256K X 39 BITS SYSTEM (NOT A MODULE TYPE).
- 43 NOTE: M8750-CB IS A MODULE TYPE USING HITACHI 64K MOS DEVICES.
- 44 NOTE: M8750-CD IS A MODULE TYPE USING FUJITSU 64K MOS DEVICES.
- 45 NOTE: M8750-CH IS A MODULE TYPE USING NEC 64K MOS DEVICES.

D	I	G	I	T	A	L	TITLE	SECTION A OF A	SIZE	CODE	DOCUMENT NUMBER	REV
							MOS MEMORY ARRAY		K	PL	M8750-CA-DBP	A



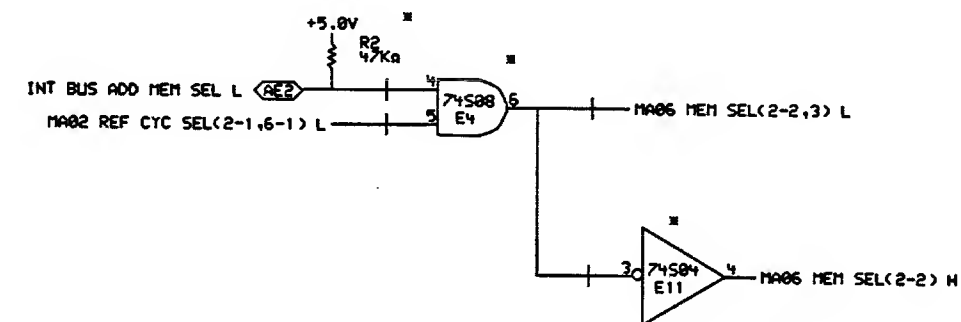
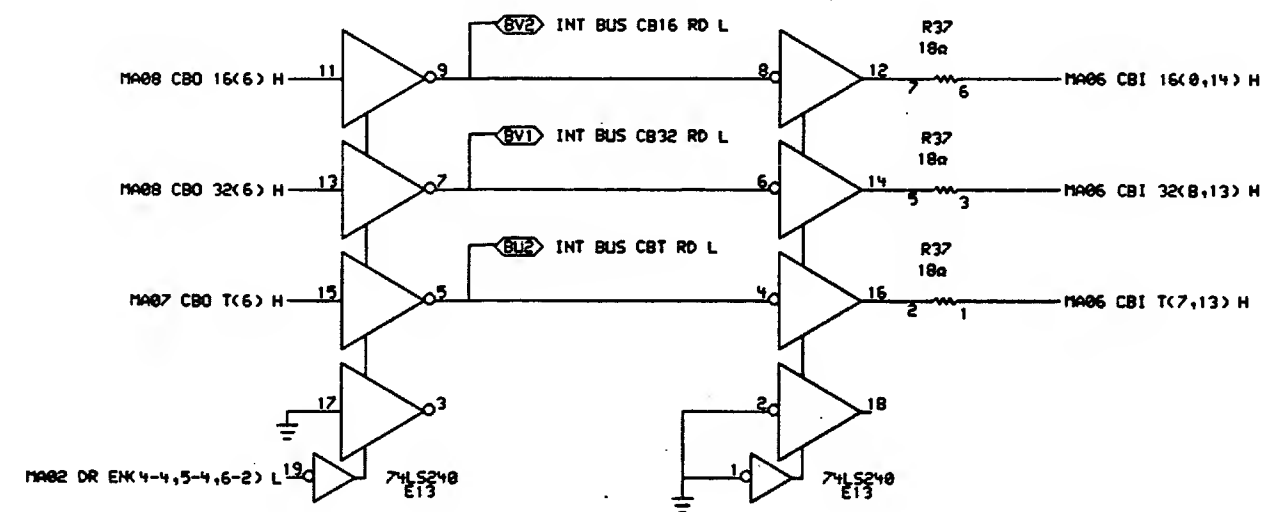
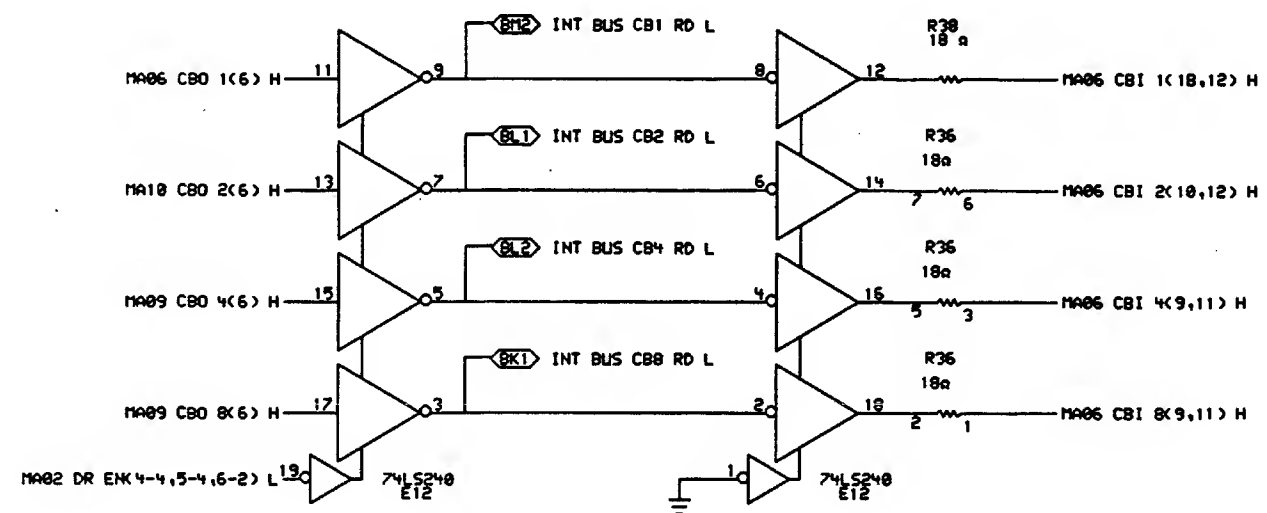


THIS DRAWING AND SPECIFICATIONS
HEREIN ARE THE PROPERTY OF
DIGITAL EQUIPMENT CORPORATION AND
SHALL NOT BE REPRODUCED OR COPIED
OR USED IN WHOLE OR IN PART AS
THE BASIS FOR THE MANUFACTURE OF
ANY OTHER EQUIPMENT WITHOUT WRITTEN
PERMISSION. COPYRIGHT © 1981
DIGITAL EQUIPMENT CORPORATION

REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. ACROUSE	DATE	ENG.	DATE	TITLE
		11-MAY-81			MOS
CHK D.		DATE	BOARD LOCATION	NUMBER	
				REV.	
FIRST USED ON OPTION/MODEL: 11/250		B-DD-M8750-0		D CS M8750-0-1 A	

(MA05)



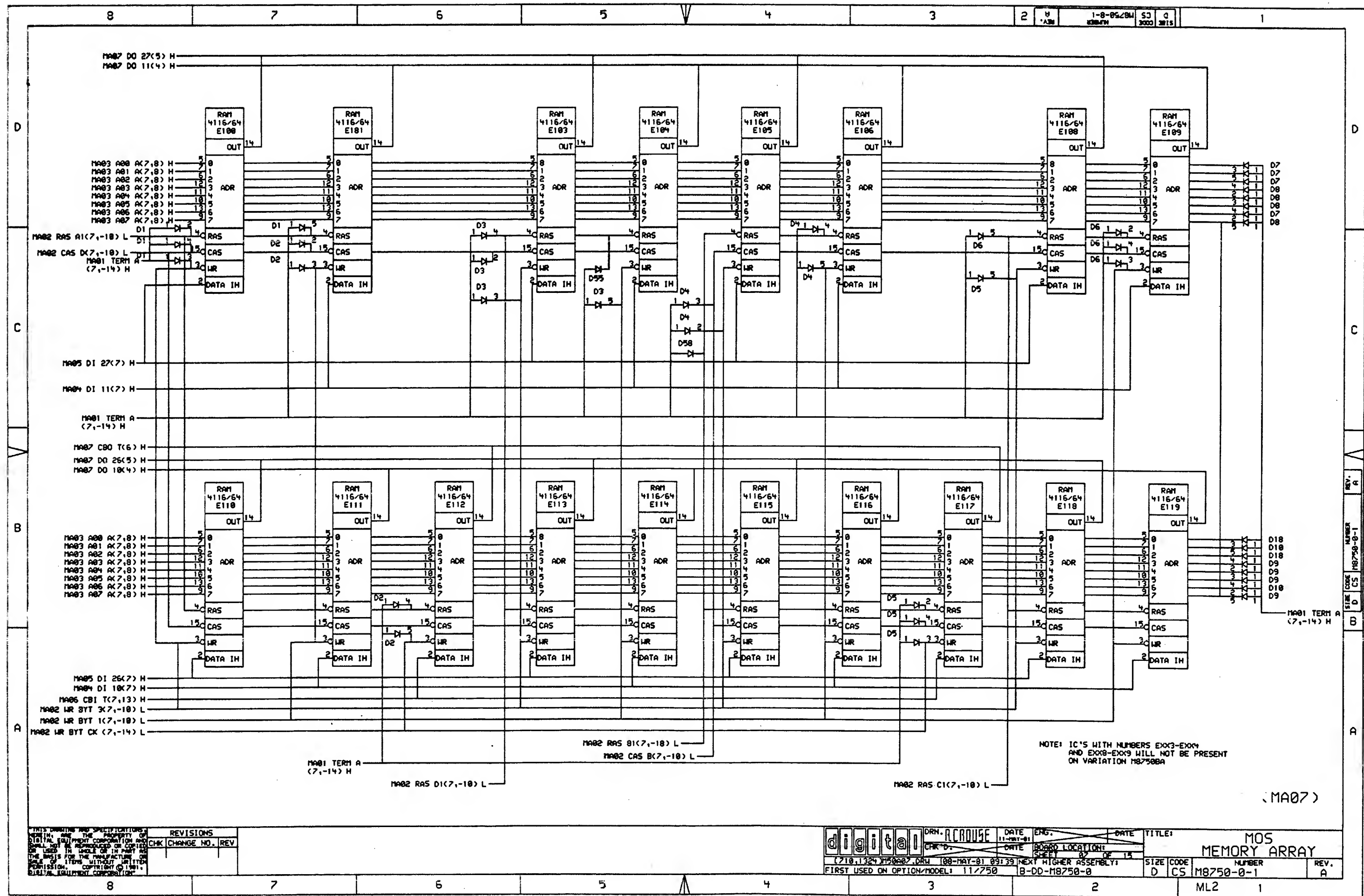
(MA06)

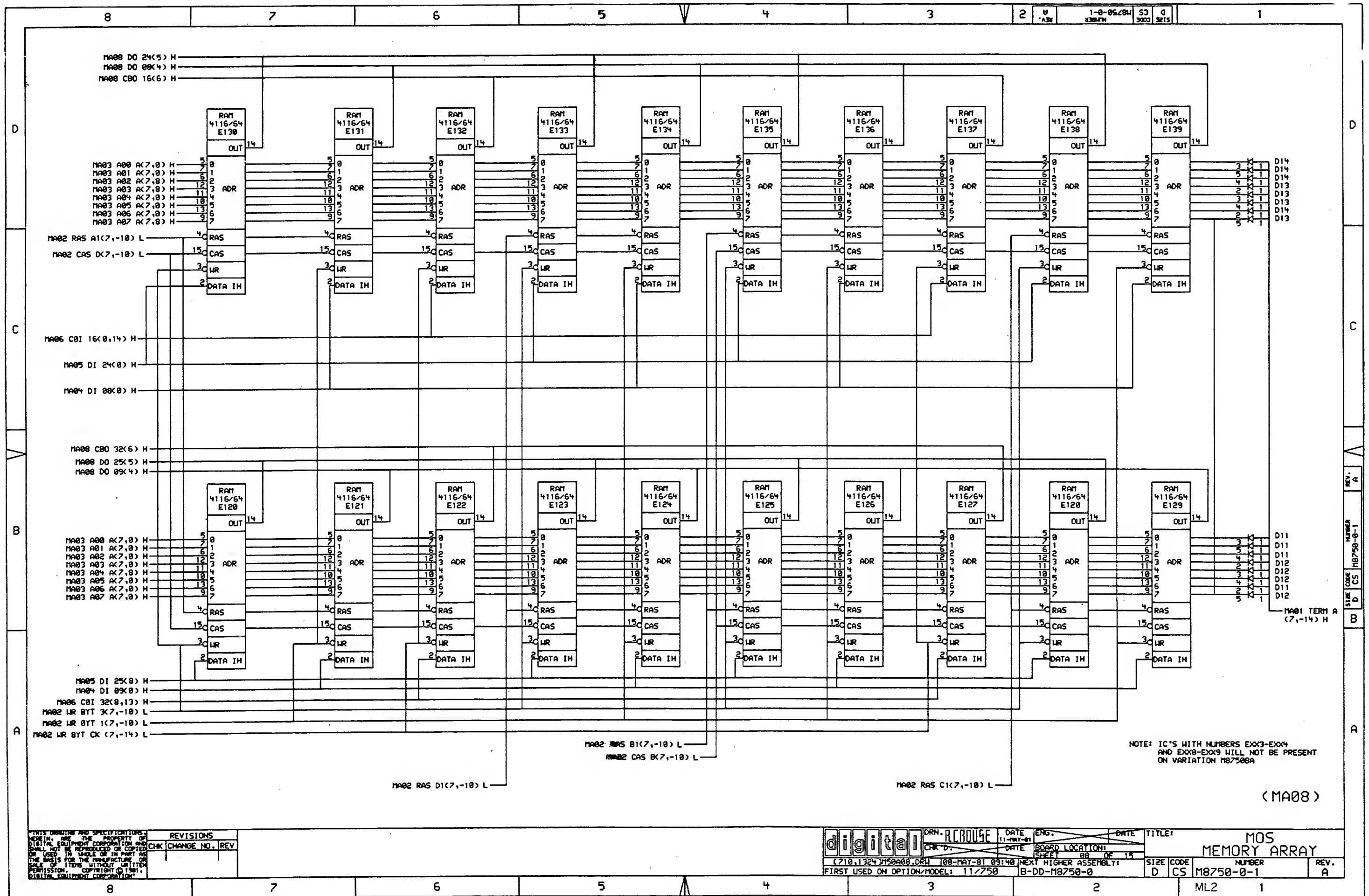
THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981. DIGITAL EQUIPMENT CORPORATION

REVISIONS		
CHK	CHANGE NO.	REV

digital	DRN. RCROUSE	DATE 11-MAY-81	ENG.	DATE	TITLE: MOS MEMORY ARRAY
	CHK D.	DATE 08-MAY-81 09:39	BOARD LOCATION: SHEET 06 OF 15		
(710,1324) M50006.DRW		FIRST USED ON OPTION/MODEL: 11/750		NEXT HIGHER ASSEMBLY: B-DD-M8750-0	
SIZE	CODE	NUMBER	REV.		
D	CS	M8750-0-1	A		

ML2 1





THIS DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981, DIGITAL EQUIPMENT CORPORATION.

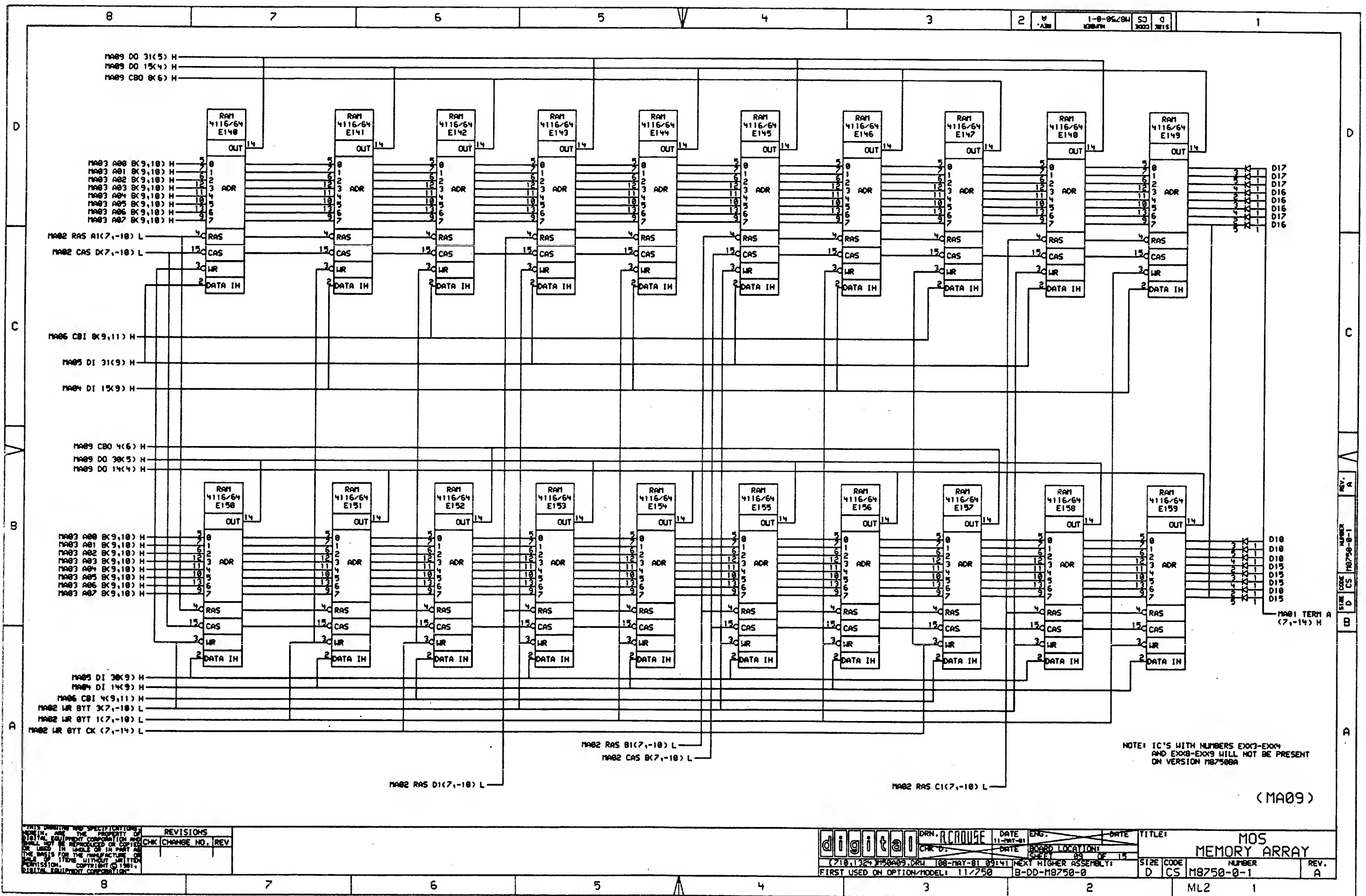
REVISIONS	
CHK	CHANGE NO. REV

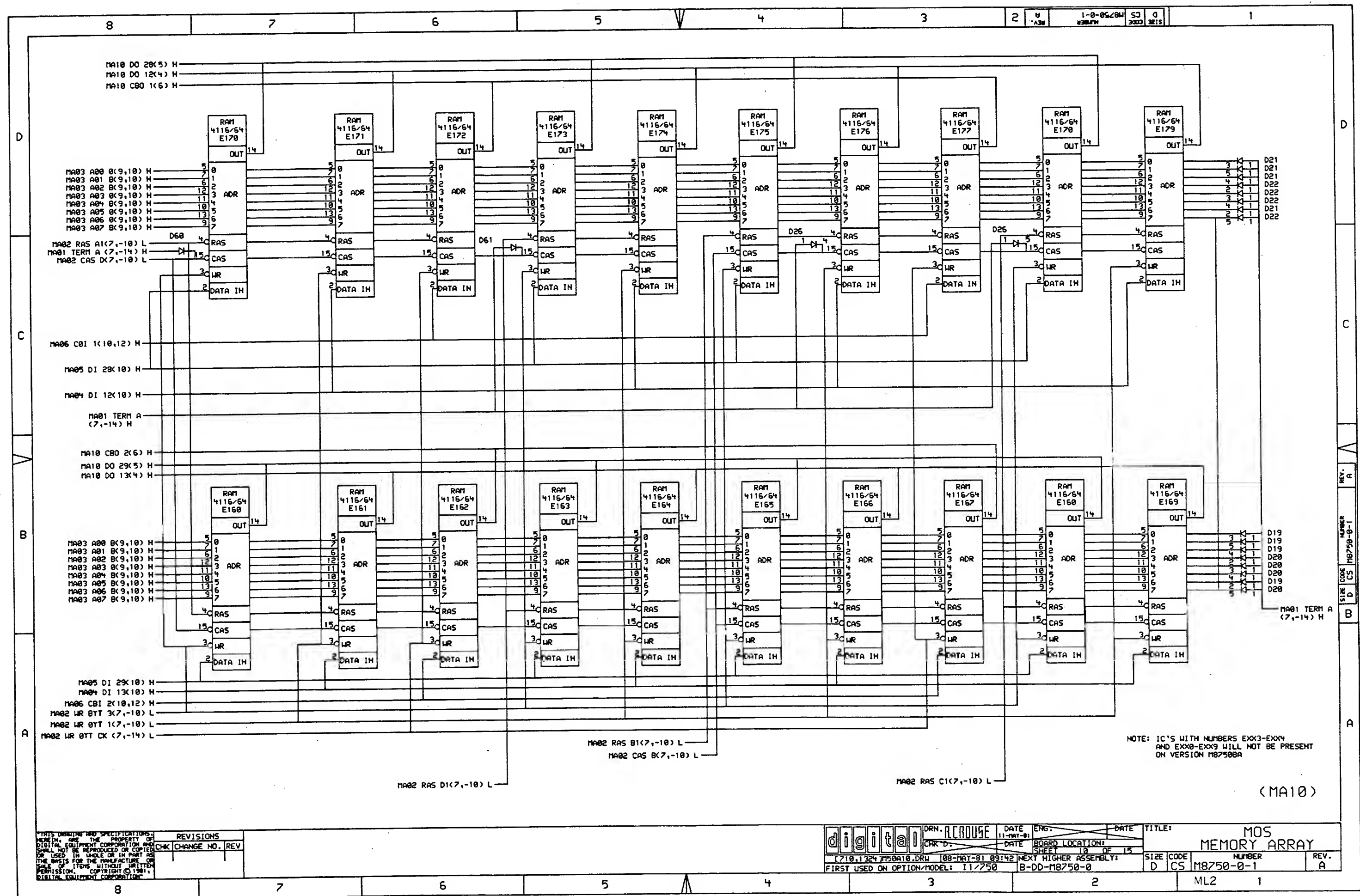
digital DRN. ACROUSE DATE 11-MAY-81 ENG. DATE 11-MAY-81 TITLE: MOS MEMORY ARRAY

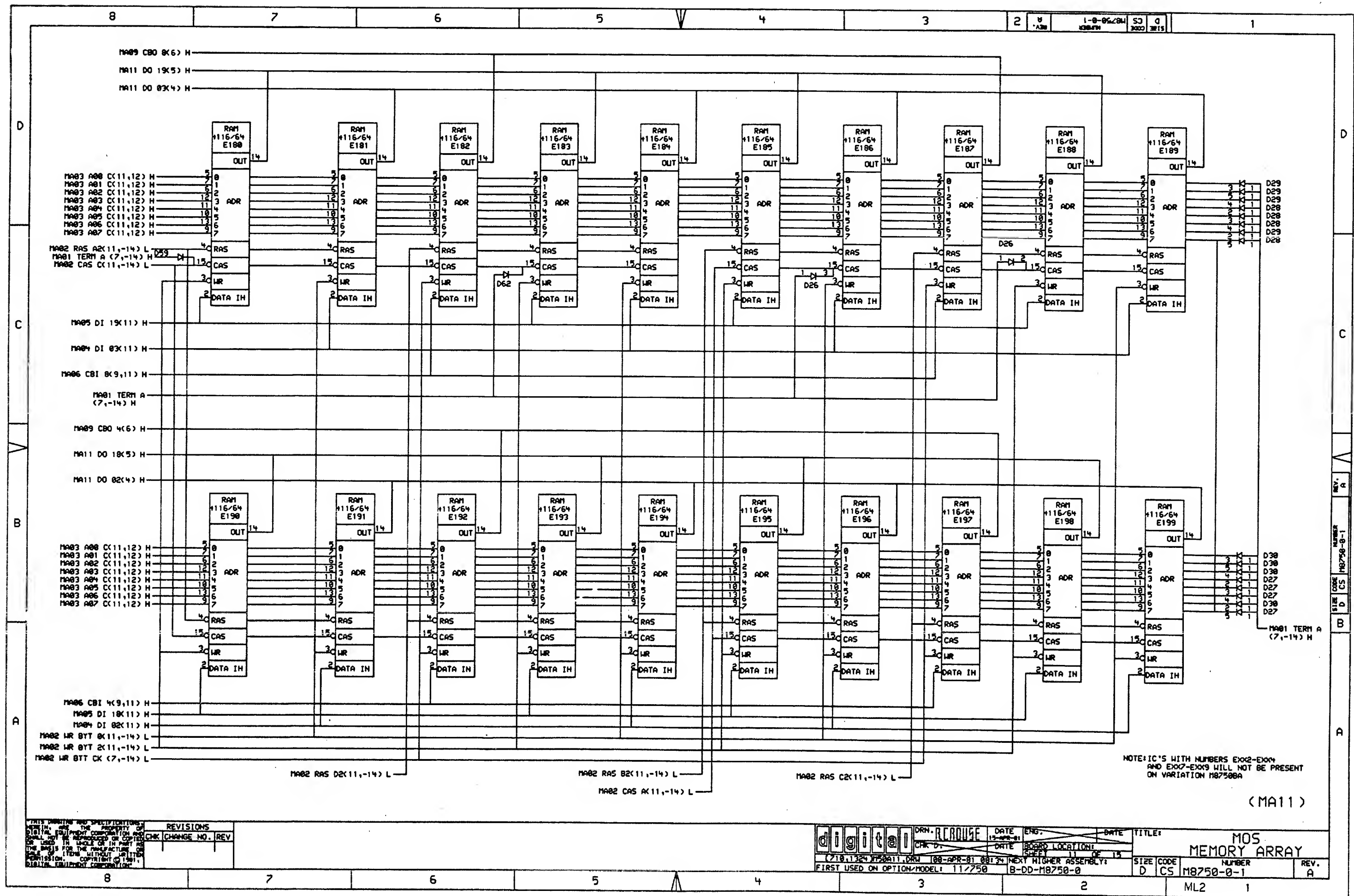
710,1324 J150A08.DRW 108-MAY-81 09:40 NEXT HIGHER ASSEMBLY: B-DD-M8750-0

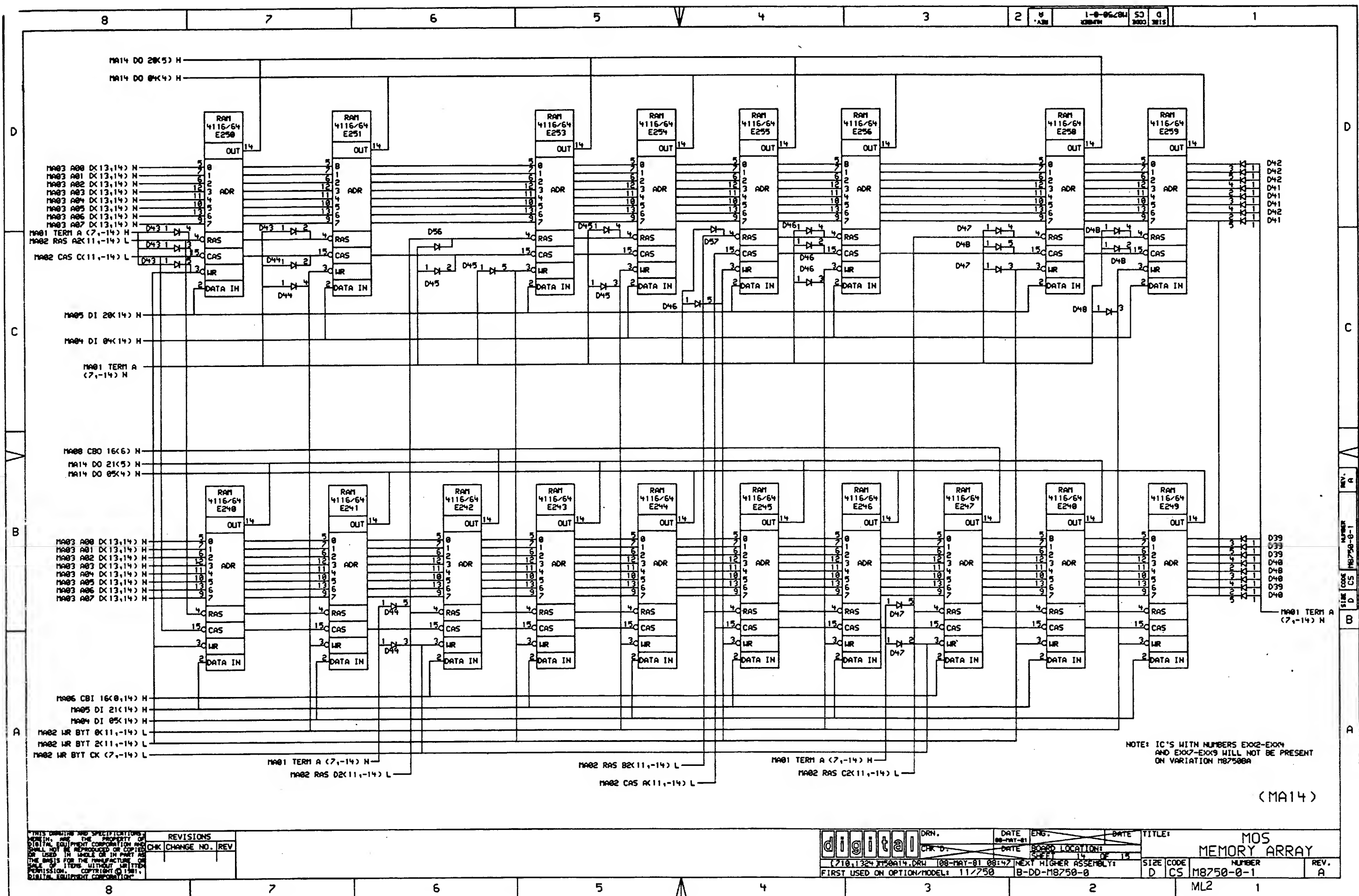
SIZE	CODE	NUMBER	REV.
D	CS	M8750-0-1	A

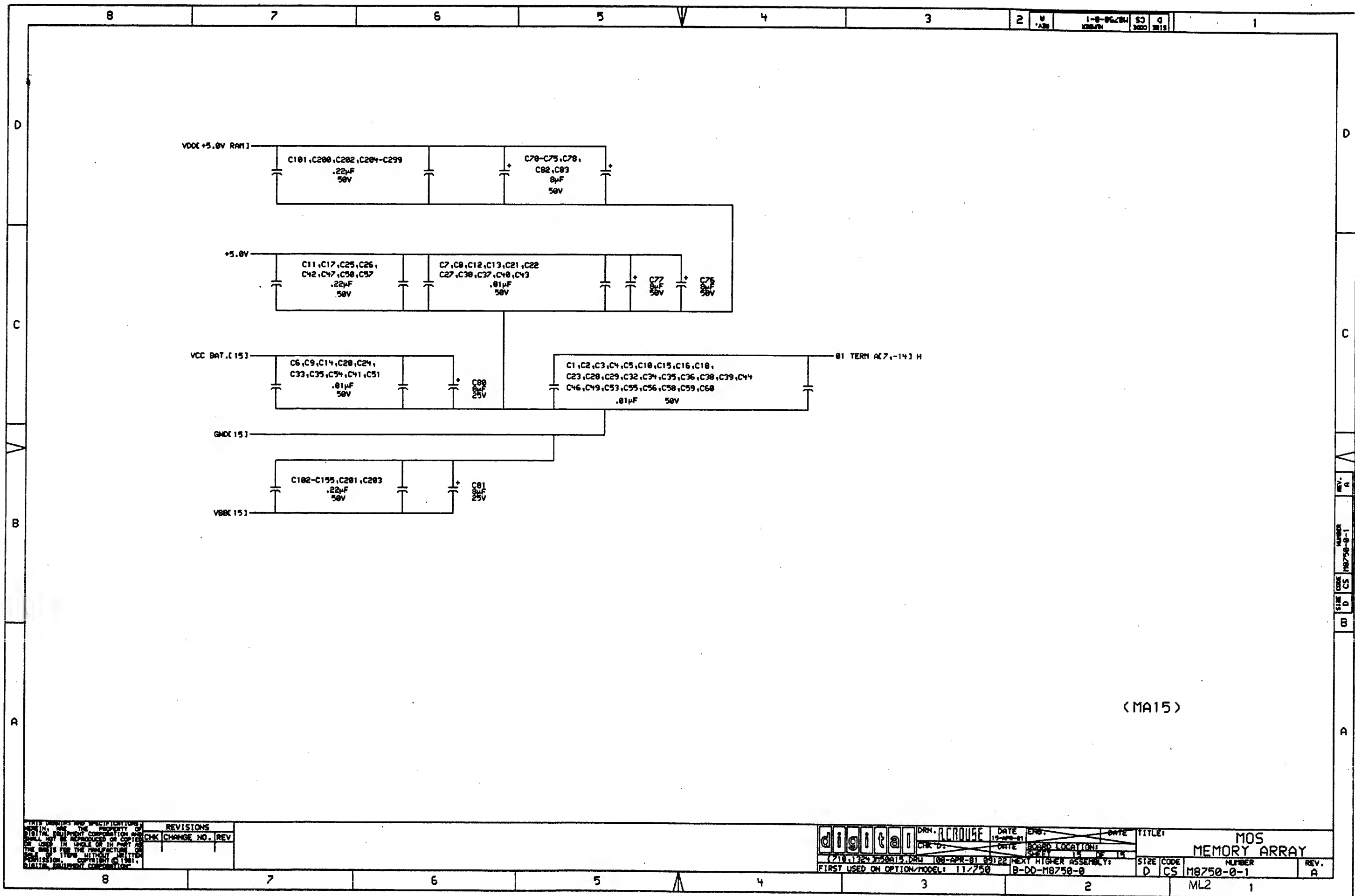
ML2 1











"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN."

***** FIELD MAINTENANCE PRINT SET *****

TABLE OF CONTENTS

B-TC-7017646-0-0	HARDWARE CONF. PKG #75
B-DD-7017646-0	HARDWARE CONF. PKG #75 DRAWING DIRECTORY
K-PL-7017646-0-DBP	HARDWARE CONF. PKG #75 PARTS LIST
D-AD-7017646-0-0	HARDWARE CONF. PKG #75 ASSY DRAWING
E-UA-BC21Z-0-0	I/O CABLE ASSEMBLY - UNIT ASSEMBLY
K-PL-BC21Z-0-DBP	I/O CABLE ASSEMBLY - PARTS LIST
D-UA-BC22D-0-0	NULL MODEM CABLE - UNIT ASSEMBLY
K-PL-BC22D-0-DBP	NULL MODEM CABLE - PARTS LIST
D-UA-BC06R-0-0	I/O CABLE - UNIT ASSEMBLY
D-IA-7012293-0-0	TERMINATOR ASSEMBLY - INSEPARABLE ASSEMBLY
D-UA-H026-0-0	RL CABLE RETRACTOR ASSY - UNIT ASSY
K-PL-H025-0-DBP	RL CABLE RETRACTOR ASSY - PARTS LIST
C-IA-7008288-0-0	CABLE ASSEMBLY - INSEPARABLE ASSEMBLY
B-DD-H9544-H	CABINET ACCESSORY KIT - DRAWING DIRECTORY
E-UA-H9544-H-0	CABINET ACCESSORY KIT - UNIT ASSEMBLY
K-PL-H9544-H-DBP	CABINET ACCESSORY KIT - PARTS LIST

UNIT VARIATIONS

7017646-00

7017646-01

FIELD MAINTENANCE
PRINT SET
CONFIGURATION PKG #75.
DIGITAL EQUIPMENT
CORPORATION
MP01277

USED ON OPTION/MODEL

DRN.	DATE
R. J. RILEY	4-13-82

!SVCXMM

CHK'D	DATE
S. DUNCANSON	4-13-62

PROJ. ENG.	DATE
D. CARLSON	4-13-82

FIELD SERV.	DATE
H. HUNTER	4-13-82

SHEET 1 OF 1

digital

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION."

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
84

SIZE	CODE	NUMBER	REV
B	TC	7017546-3-1	A
DIST.			

"THE MATERIAL HEREIN IS FOR INFORMATION PURPOSES ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE. DIGITAL EQUIPMENT CORPORATION ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR HEREIN."

*** DRAWING DIRECTORY ***

UNIT VARIATIONS	
VAR	TITLE
-00	HARDWARE CONFIGURATION
	PKG NO. 76
-01	HARDWARE CONFIGURATION
	PKG NO. 76, 240V

		USED ON OPTION/MODEL	DRN. P. TOUSIGNANT	DATE 11 MARCH 82		
		SV-CXMMA	CHK'D R. RILEY	DATE 11 MARCH 82		
			PROJ. ENG. D. CARLSON	DATE 11 MARCH 82		
			PROD. S. CASTIGLIONE	DATE 11 MARCH 82		
		SHEET 1 OF 2	d i g i t a l			
"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION.			TITLE: HARDWARE CONFIGURATION PKG NO. 75			
			SIZE B	CODE DD	NUMBER 7317646-0	REV A
			DIST.			

	DRAWING NUMBER	DESCRIPTION			DRAWING NUMBER	DESCRIPTION	
1	D-AD-7017646-0-0,	HARDWARE CONFIGURATION PKG. NO. 75	E/M	9	B-DD-H9544-C	H9544-C TRIM KIT	M
	K-PL-7017646-0-DBP	HARDWARE CONFIG. PKG. NO. 75 P/L	E/M				
	A-PS-3700436-0-0	PKG CAB H9642/H9645/H9646		10	B-DD-H9544-D	H9544-D BEZEL ASSY	M
	C-MD-7419856-0-0	BRKT., RLO1 SHIPPING BLACK	M				
	A-PS-3618384-0-0	LABEL, CAUTION STABILIZER FOOT	M	11	B-DD-H9544-H	CABINET ACCESSORY KIT	E/M
	A-PS-1213756-0-0	GROUND STRAP	E/M				
	A-PS-3617880-0-0	LABEL, FCC CLASS A PROCESSOR	M	12	B-DD-H026-0	RL RETRACTOR ASSY	M
	A-PS-3617674-0-0	LABEL, SERIAL & POWER W/UL & CSA	M				
	A-PS-3618058-0-0	LABEL, CAUTION STABILITY 11V23-WA	M	13	B-DD-DMF32-A	DMF32 OPTION	E/M
	A-PS-3618057-0-0	LABEL, CAUT. SERV. INTERLOCK 11V					
2	B-DD-11730-Z	11730-Z UNIT ASSY	E/M	14	D-IA-7012293-0-0	TERMINATOR ASSY	E/M
					A-DC-7416678-0-0	TERMINATOR LOGO	E/M
3	B-DD-874-0	874 POWER CONTROL	E/M	15	D-UA-BC06R-0-0	BC06R I/O CABLE	E
					A-PS-3616989-0-0	CABLE ID LABEL	M
4	B-DD-M8388-0	IDC	E/M		A-PS-3616073-0-0	IDENTIFICATION LABEL	M
5	B-DD-RL02-F	RL02 DISK DRIVE	E/M	16	C-IA-7003288-0-0	CABLE ASSY	E
6	B-DD-H9542-F	H9542-F 40 INCH FRAME ASSY	M	17	E-UA-BC21Z-0-0	I/O CABLE ASSY	E
					K-PL-BC21Z-0-DBP	I/O CABLE ASSY PARTS LIST	E
7	B-DD-H9544-A	END. PANEL ASSY	M		A-PS-3616073-0-0	IDENTIFICATION LABEL	M
8	B-DD-H9544-B	H9544-B REAR DOOR	M	18	B-DD-BC22D-0	CABLE, NULL MODEM	E
				19	A-PL-7012938-0-0	UNIT SELECT PLUG KIT	M
TYPE: E = ELECTRICAL M = MECHANICAL E/M = ELECTRO/MECHANICAL				TITLE: HARDWARE CONFIGURATION PACKAGE NO. 75			
				SHEET 2 OF 2	SIZE B	CODE DD	NUMBER 7017646-0
							REV A

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A1 OF A2

LINE ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION	
				00	01
1	1	E-UA-11730-Z-0	11730-ZA	KA730-A,BA11-ZA,2 TUS9,MS730-CA,	1 1
2	2	A-PS-3700436-0-0	3700436-08	CAB H9642 REPLACES VAR. 00, 01,	1 1
3	3	E-UA-874-0-0	00874-C	120V 16A FILTERED POWER CONT,6 S	1 0
4	4	E-UA-874-0-0	00874-B	220-240V 12A FILTERED PWR CONT,6	0 1
5	5	D-UA-M8388-0-0	M8388-00	RB730 IDC (INTEGRATED DISK CONTR	1 1
6	6	E-UA-RL02-0-0	ORL02-FK	RL02-F + RL02K-IC,120V/240V	2 2
7	7	E-UA-H9542-0-0	H9542-FB	40" 10.5" TOP LOADING CAB FRAME	1 1
8	8	D-UA-H9544-A-0	H9544-AA	40"END PANEL,GREY FRAME,DARK BRO	2 2
9	9	D-UA-H9544-B-0	H9544-BK	EXTENDED DEPTH REAR DOOR FOR H96	1 1
10	10	D-UA-H9544-C-0	H9544-CA	RL01/RL02 TRIM FILLER STRIP KIT	1 1
11	11	D-UA-H9544-D-0	H9544-DA	1.75" BEZEL ASSY FOR H9642	1 1
12	12	D-UA-H9544-D-0	H9544-DB	6"X19" FRONT COVER FOR BOTTOM OF	1 1
13	13	E-UA-H9544-H-0	H9544-HA	KIT OF 4 LEVELERS,1 PULL-OUT STA	1 1
14	14	D-UA-H026-0-0	OH026-00	CABLE RETRACTOR FOR RL01,RL02	2 2
15	15	C-MD-7419856-0-0	7419856-01	BRKT,RL01 SHIPPING BLACK	1 1
16	16	D-UA-DMF32-A-0	DMF32-AA	8 EIA ASYNC SLU,SYNC SLU,PARALLE	1 1
17	17		9009700-00	SCREW,TRUS,PHIL,SEMS10-32X .500L	6 6
18	18		9007032-00	TIE,CABLE BUNDL.DIA 0-1-3/4"=101	10 10
19	19		9009636-00	CLAMP, CABLE, FOR FLAT CABLE	1 1
20	20		9007867-00	MOUNT, PUSH,CABLE TIE	1 1
21	21	A-PS-1218912-0-0	1218912-01	CLIP,CABLE 3/4	2 2
22	22		9007786-00	RETAINER, U-NUT, 10-32	5 5
23	23	A-PS-3618384-0-0	3618384-01	LABEL,CAUTION STABILIZER FOOT	1 1
24	24	D-IA-7012293-0-0	7012293-00	TERMINATOR ASSEMBLY	1 1
25	25	D-UA-BC06R-0-0	BC06R-8F	I/O CABLE	1 1
26	26	C-IA-7008288-0-0	7008288-06	CABLE ASSY	1 1
27	27	E-UA-BC21Z-0-0	BC21Z-06	SHIELDED I/O CABLE,RL01/RL02,PAS	1 1
28	28	B-UA-BC22D-0-0	BC22D-25	25FT CABLE,ASYNC,NULL MODEM,6 WI	1 1
29	29	A-PS-1213756-0-0	1213756-12	GROUND STRAP	1 1
30	30		9007083-00	CLAMP,CABLE,SCREW MTD. 3/8	1 1

REVISION HISTORY			BASIC PART NO: 7017646			DRN: P. TOUSIGNANT			DATE: 24-FEB-82			DIGITAL		
ENG	ECO NUMBER	REV	SECTION A OF A									TITLE		
	INITIAL	X00	SECTION VARIATION INDEX			CHK'D: S. DUNCANSON			DATE: 24-FEB-82			HARDWARE CONFIG. PKG. NO. 75		
			[A] 00,01											
			[B]			DES.ENG.: D. CARLSON			DATE: 24-FEB-82					
			[C]									DOCUMENT NUMBER		
			[D]			RESP.ENG.: D. CARLSON			DATE: 24-FEB-82			SIZE CODE NUMBER		
			[E]			MFG.ENG.: S. CASTIGLIONE			DATE: 24-FEB-82			K PL 7017646-0-DBP		
			[F]			ASSEMBLY NUMBER:			TOP DOCUMENT NUMBER:			FILE NAME:		
						D-AD-7017646-0-0			B-DD-7017646-0-0			Z3335A.PLS		
												EDIT #		
												16		

THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT (C) 1982. DIGITAL EQUIPMENT CORPORATION

LINE	ITEM	DOCUMENT	NUMBER
------	------	----------	--------

DESCRIPTION

00 01

SHEET A2 OF A2

1	1
1	1
1	1
1	1
4	4
1	1
1	1

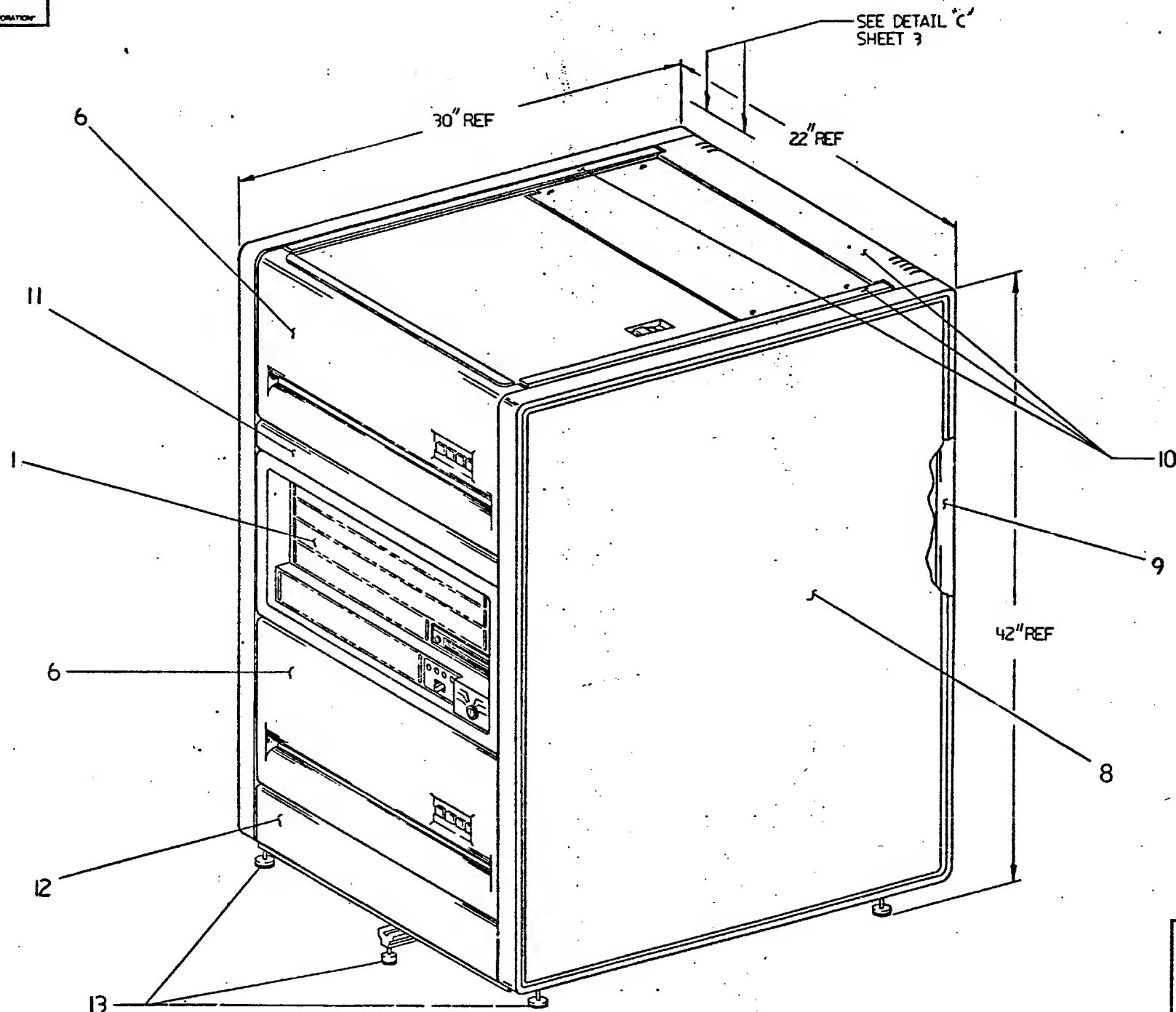
RELEASABLE

#####



D	I	G	I	T	A	L	TITLE		SIZI	CODE	DOCUMENT NUMBER	REV
							HARDWARE CONFIG. PKG. NO..75	SECTION A OF A	K	PL	7017646-0-DBP	X00


THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT © 1981 DIGITAL EQUIPMENT CORPORATION

NOTE:
1. FOR DETAIL CONFIGURATION
INFORMATION OF ITEMS 5, 16, 25
WITHIN THE CPU BOX REFERENCE
E-UA-11730-Z-0



CAUTION:SEE OFF SHEETS PARTS LIST
K-PL-7017646-0-DBP. (Z3335A)

		DESCRIPTION		DRAWING NO.		PART NO.		ITEM NO.		
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND THE FOLLOWING TOLERANCES APPLY (PER DEC STD 114)								
		INCHES TOLERANCES X = ± .01 XX = ± .005 XXX = ± .0025	ANGLES ± 0° 30' SURFACE QUALITY  MICROFINISHES	APPLICABLE DIMENSION RANGE CHECK ONE <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DIMENSION RANGE IN INCHES					
					OVER 0 TO 0.2	OVER 0.2 TO 1.0	OVER 1.2 TO 4.0	OVER 4.0 TO 12.0	OVER 12.0 TO 48.0	OVER 48.0 TO 108.0
QUANTITY & VARIATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

 THIRD ANGLE PROJECTION	DESIGNED BY <i>P. J. Toussaint</i>	DATE <i>2/24/12</i>	TITLE <div style="border: 1px solid black; padding: 5px; display: inline-block;">digital</div>
	CHECKED BY <i>Mark Drenthman</i>	DATE <i>2/24/12</i>	
	DESIGNED BY <i>Langdon Coleman</i>	DATE <i>2/24/12</i>	
	DESIGNED BY <i>David A. Co. Co.</i>	DATE <i>2/24/12</i>	
MATERIAL SEE PARTS LIST	DESIGNED BY <i>W. J. Castorline</i>	DATE <i>25 Feb 62</i>	DOCUMENT NUMBER HARDWARE CONFIG. PACKAGE NO. 75
FINISH <i>11</i>	NEXT HIGHER CODE B-00-7017646-0-0		SIZE CODE D AD 7017646-0-0 A

SHEET 1 OF 3

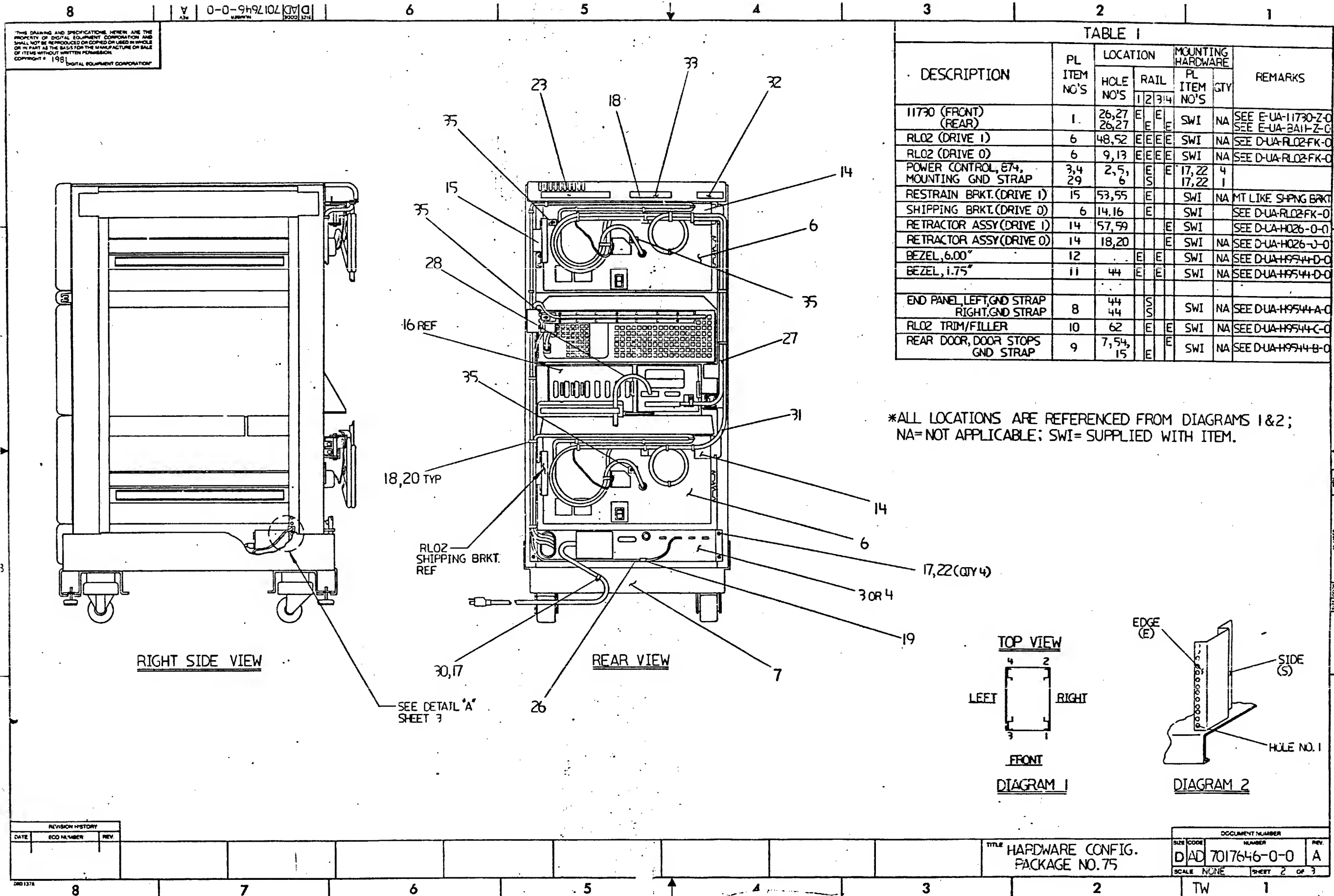
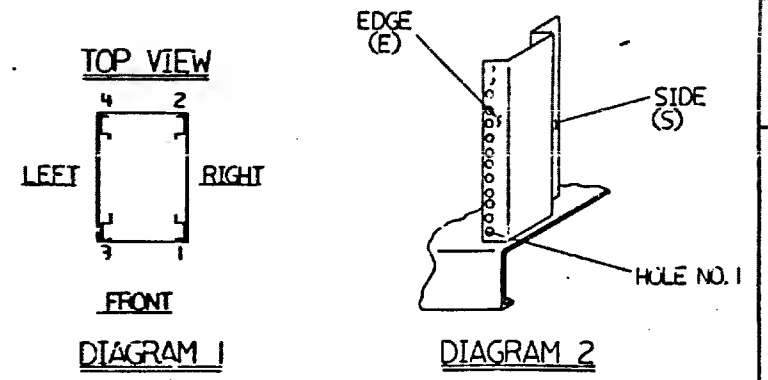
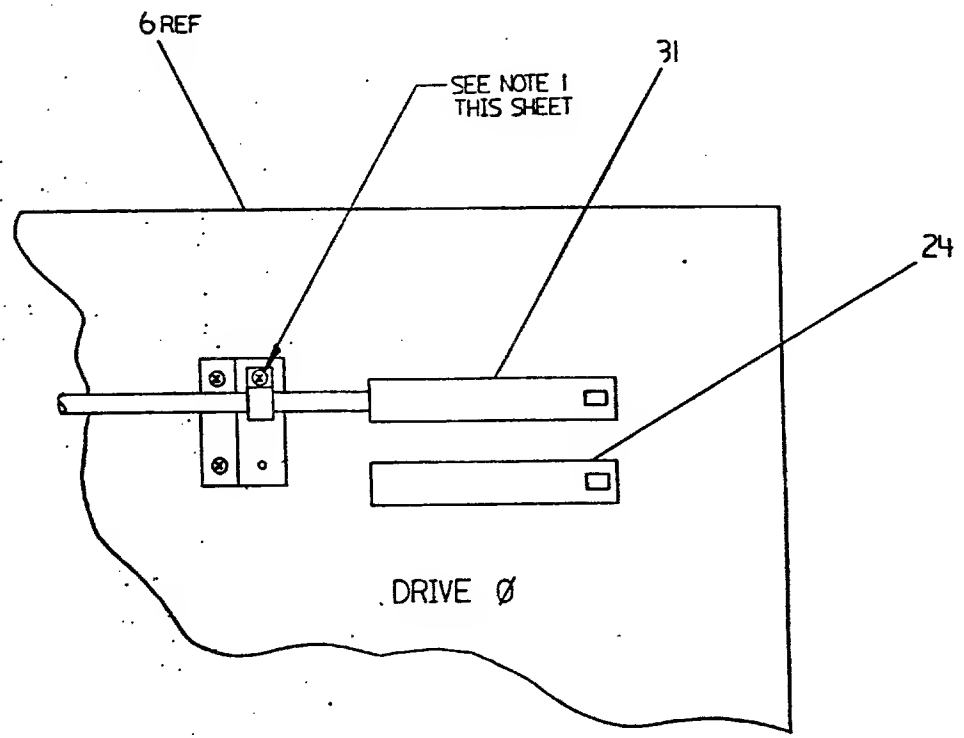
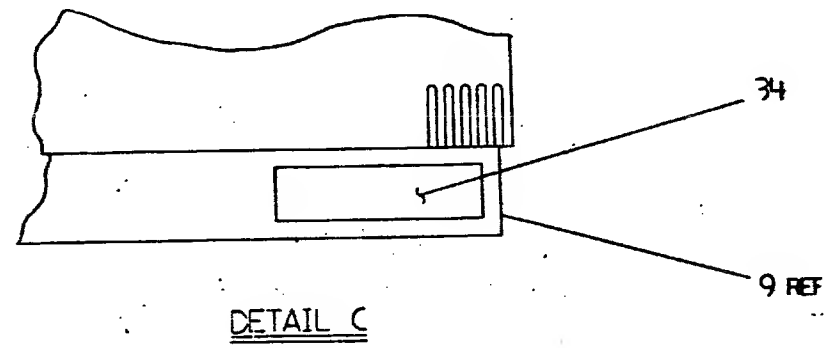
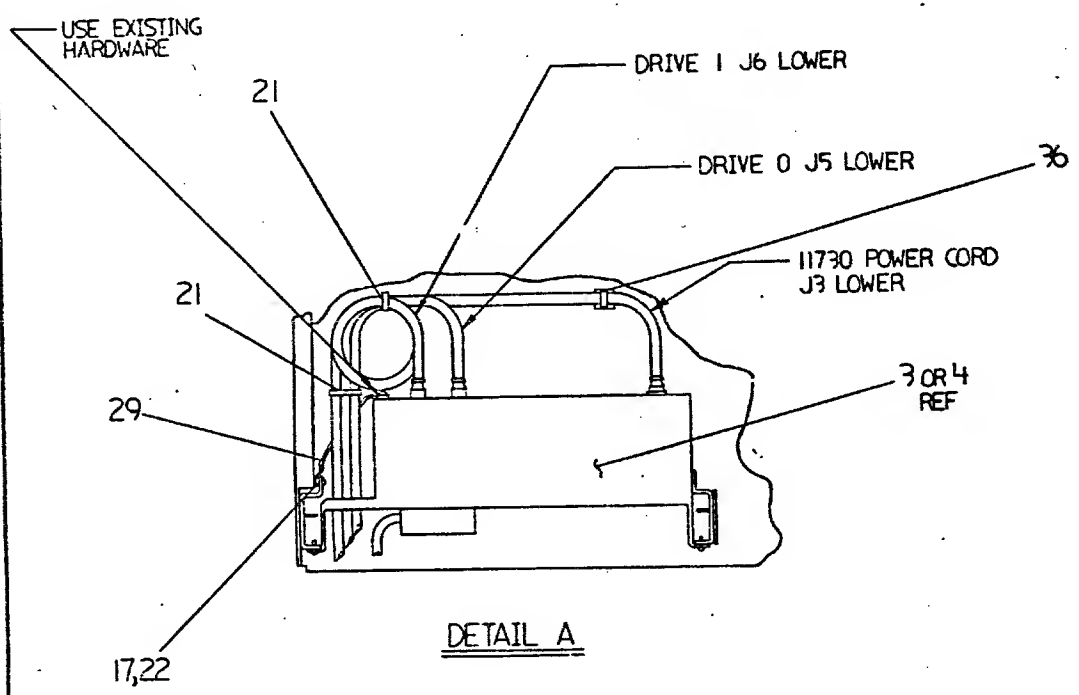


TABLE 1							
DESCRIPTION	PL ITEM NO'S	LOCATION		MOUNTING HARDWARE		REMARKS	
		HOLE NO'S	RAIL	PL ITEM NO'S	QTY		
11730 (FRONT) (REAR)	1	26,27 26,27	E E	SWI	NA	SEE E-UA-11730-Z-0 SEE E-UA-BA11-Z-0	D
RL02 (DRIVE 1)	6	48,52	E E E E	SWI	NA	SEE D-UA-RL02FK-0	
RL02 (DRIVE 0)	6	9,13	E E E E	SWI	NA	SEE D-UA-RL02FK-0	
POWER CONTROL, 874, MOUNTING GND STRAP	3,4 29	2,5, 6	E S	E 17,22 17,22	4 1		
RESTRAIN BRKT.(DRIVE 1)	15	53,55	E	SWI	NA	MT LIKE SHPNG BRKT	
SHIPPING BRKT.(DRIVE 0)	6	14,16	E	SWI		SEE D-UA-RL02FK-0	
RETRACTOR ASSY(DRIVE 1)	14	57,59	E	SWI		SEE D-UA-H026-0-0	
RETRACTOR ASSY(DRIVE 0)	14	18,20	E	SWI	NA	SEE D-UA-H026-0-0	
BEZEL, 6.00"	12		E E	SWI	NA	SEE D-UA-H9544-D-0	
BEZEL, 1.75"	11	44	E E	SWI	NA	SEE D-UA-H9544-D-0	
END PANEL, LEFT, GND STRAP RIGHT, GND STRAP	8	44 44	S S	SWI	NA	SEE DUA-H9544-A-0	
RL02 TRIM/FILLER	10	62	E E	SWI	NA	SEE D-UA-H9544-C-0	
REAR DOOR, DOOR STOPS GND STRAP	9	7,54, 15	E E	SWI	NA	SEE D-UA-H9544-B-0	C

*ALL LOCATIONS ARE REFERENCED FROM DIAGRAMS 1&2;
NA=NOT APPLICABLE; SWI= SUPPLIED WITH ITEM.



THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1981 DIGITAL EQUIPMENT CORPORATION



DETAIL B
 REAR VIEW OF RLO2
 NOTE: 1. ATTACH BC21Z SHIELD WITH HARDWARE SUPPLIED WITH ITEM TYPICAL TO DRIVE 0, 1, AND 11730-ZA.

REVISION HISTORY		
DATE	ECO NUMBER	REV.

TITLE
 HARDWARE CONFIG.
 PACKAGE NO. 75

DOCUMENT NUMBER		REV.
SIZE CODE	NUMBER	
DAD7017646-0-0		A
SCALE	SHEET	3 OF 3
TW	1	

AUTOMATED BY PRTLST.3P(44)

PARTS LIST

SHEET A1 OF A1

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION										
					06	08	10	12	20	25	30	40	50	60	75
1	1		1211591-52	CONN.ZIF 40PIN PLUG/STRAIN REL	2	2	2	2	2	2	2	2	2	2	2
2	2		1211591-07	CONN.ZIF 40PIN PLUS	2	2	2	2	2	2	2	2	2	2	2
3	3		1211591-11	CONN.ZIF COVER,CONTACT DISPLATI	4	4	4	4	4	4	4	4	4	4	4
4	4		9107255-00	TUNING,SHRINK 1/8 DIA.EXP UL	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
5	5		1700051-03	CABLE, 26 COND. 28AUG.TUP,SHIELD	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R
6	6		9905012-04	ENVELOPE,HAILITE,SHIPPING	2	2	2	2	2	2	2	2	2	2	2
7	7		3616073-00	LABEL,CABLE IDENTIFICATION	1	1	1	1	1	1	1	1	1	1	1
8	8		1219082-01	CONN.GROUNDING SHEATH,INNER RING	2	2	2	2	2	2	2	2	2	2	2
9	9		1219145-01	CONN.GROUNDING SHEATH/STRAIN REL	2	2	2	2	2	2	2	2	2	2	2

10 NOTE:	-	LEGEND		LEGEND	
11 NOTE:	-	PART NUMBER	VARIATION	PART NUMBER	VARIATION
12 NOTE:	-	BC212-06	I/O CABLE ASSY,6FT	BC212-30	I/O CABLE ASSY,30FT
13 NOTE:	-	BC212-08	I/O CABLE ASSY,8FT	BC212-40	I/O CABLE ASSY,40FT
14 NOTE:	-	BC212-10	I/O CABLE ASSY,10FT	BC212-50	I/O CABLE ASSY,50FT
15 NOTE:	-	BC212-12	I/O CABLE ASSY,12FT	BC212-60	I/O CABLE ASSY,60FT
16 NOTE:	-	BC212-20	I/O CABLE ASSY,20FT	BC212-75	I/O CABLE ASSY,75FT
17 NOTE:	-	BC212-25	I/O CABLE ASSY,25FT		

REVISION HISTORY		BASIC PART NO: BC212		DRN: K. DAVIS		DATE: 12-OCT-81		D I S T R I B U T I O N	
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: S. MILLER	DATE: 13-OCT-81	TITLE PARTS LIST			
	INITIAL	A	SECTION, VARIATION INDEX	DES.ENG.: S. HANDEL	DATE: 13-OCT-81	I/O CABLE ASSEMBLY			
			[A] 06,08,10,12,20,25,30,40,50,60,75	RESP.ENG.: V. HARDER	DATE: 13-OCT-81	DOCUMENT NUMBER			
			[B]	MFG.ENG.: R. PAYETTE	DATE: 13-OCT-81	SIZE	CODE	NUMBER	REV
			[C]	ASSEMBLY NUMBER: E-UA-BC212-0-0	TOP DOCUMENT NUMBER: 88-DD-RL01-0	K	PL	BC212-0-DBP	A
			[D]		FILE NAME: Z2929A.PLS	EDIT 8			
			[E]	THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.					
			[F]	COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION					

THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.

COPYRIGHT © 1982 DIGITAL EQUIPMENT CORPORATION

LEGEND

NUMBER	VARIATION	DIM "X"	DIM "Y" REF
BC22D-10	I700313-01	10 FT.	
BC22D-25	I700313-02	25 FT.	
BC22D-35	I700313-03	35 FT.	
BC22D-50	I700313-04	50 FT.	
BC22D-75	I700313-05	75 FT.	
BC22D-A0	I700313-06	100 FT.	
BC22D-A5	I700313-07	150 FT.	
BC22D-B0	I700313-08	200 FT.	
BC22D-B5	I700313-09	250 FT.	

WIRE TABLE

ITEM NO.	PAIR NO.	DESCRIPTION	TO		FROM		REMARKS
			CONN	WITH	CONN	WITH	
2 THRU 10			BLK	PI-1	P2-1		
			BRN	PI-2	P2-3		
			RED	PI-3	P2-2		
			ORN	PI-6	P2-20		
			YEL	PI-7	P2-7		
			GRN	PI-20	P2-6		
			—	PI-SHELL	P2-SHELL		SHIELD & DRAIN WIRE

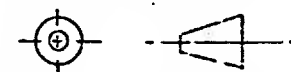
NOTES:

1. FOR CABLE CONFIGURATION REFER TO A-PS-1700313-0-0.

REVISIONS
CHK CHANGE NO. REV.
ORIGINATED A

DRB 100A

THIRD ANGLE PROJECTION



REMOVES BURRS AND
BREAK SHARP CORNERS

DO NOT SCALE DWG

MATERIAL

FINISH

QUANTITY &
VARIATION

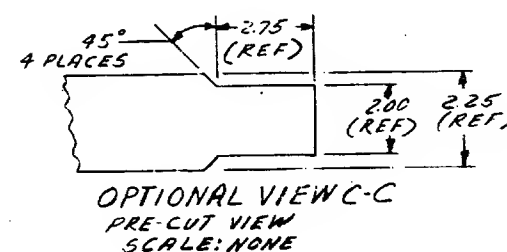
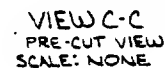
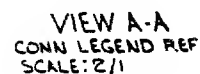
DESCRIPTION		DWG/PART NO.		ITEM NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES					
ANGLES ± 0° 30'	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES			
SURFACE QUALITY IN	MEDIUM	±.004	±.008	±.012	±.016
MICROINCHES	PREFERRED	±.012	±.016	±.025	±.04
DRN. <i>[Signature]</i>		FIRST USED ON			
CHK'D <i>[Signature]</i>		TITLE			
ENG. <i>[Signature]</i>		CABLE, NULL MODEM			
PROJ. ENG. <i>[Signature]</i>		B-DD-BC22D-0			
PROD.		SIZE CODE			
NEXT HIGHER ASSY.		NUMBER			
SCALE NONE		B UA BC22D-0-0			
SHEET		OF			
DIST.		REV.			

MK

LEGEND			
NUMBER	DIM X'	PRECUT LENGTH	REMARKS
BC06R-011	1FT	1FT 1.5IN ± 1IN	SEE PRE-CUT VIEW C-C
BC06R-02	2FT	2FT 1.5IN ± 1IN	
BC06R-03	3FT	3FT 1.5IN ± 1IN	
BC06R-04	4FT	4FT 1.5IN ± 1IN	
BC06R-05	4FT 6IN	4FT 7.5IN ± 1.5IN	SEE NOTE 7
BC06R-06	6FT	6FT 1.5IN ± 2IN	
BC06R-08	8 FT	8 FT 1.5IN ± 2IN	
BC06R-10	10 FT	10 FT 1.5IN ± 2IN	
BC06R-12	12 FT	12 FT 1.5IN ± 3IN	
BC06R-20	20 FT	20 FT 1.5IN ± 3IN	
BC06R-25	25 FT	25 FT 1.5IN ± 3IN	
BC06R-30	30 FT	30 FT 1.5IN ± 6IN	
BC06R-50	50 FT	50 FT 1.5IN ± 10 FT	
BC06R-60	60 FT	60 FT 1.5IN ± 1.2 FT	
BC06R-75	75 FT	75 FT 1.5IN ± 1.5 FT	
BC06R-A0	100 FT	100 FT 1.5IN ± 2 FT	
BC06R-07	7 FT	7 FT 1.5IN ± 2IN	
BC06R-8F	8FT 6IN	8 FT 7.5IN ± 1IN	SEE PRE-CUT VIEW C-C
BC06R-15	15 FT	15 FT 1.5IN ± 3IN	

1 LABEL (ITEMS 5 OR 6 CAN BE USED)
TO CONTAIN:
PART NO.
REV.
DATE (OF BUILD)
MFG (STAMP) TEST (STAMP)
INSP (STAMP)
AFFIX LABEL AROUND CABLE IN
APPROX CENTER.

2. DRAIN WIRE CONNECTS TO PIN NO 40.
3. RUBBER STAMP INFORMATION SHOWN USING INK (ITEM 3) & ARTWORK DEC NO A-DC-741699-0-0.
4. STAMP APPLICABLE OPTION DASH NO. ACCORDING TO LENGTH.
5. REMOVE SHIELD .75 FROM END OF PRECUT CABLE (SEE VIEW C-C).
6. COVER EXPOSED DRAIN WIRE WITH ITEM 4 PRIOR TO ASSY (BOTH ENDS).
- * 7. FOR RP04, RP05, RP06 USE WRAP AROUND VINYL LABEL. SEE VARIATIONS ON DRAWING NUMBER A-PS-361589-0-0. ALSO SEE NEXT HIGHER ASSEMBLY E-1A-7307-0-0 AND E-1A-7009808-0-0.

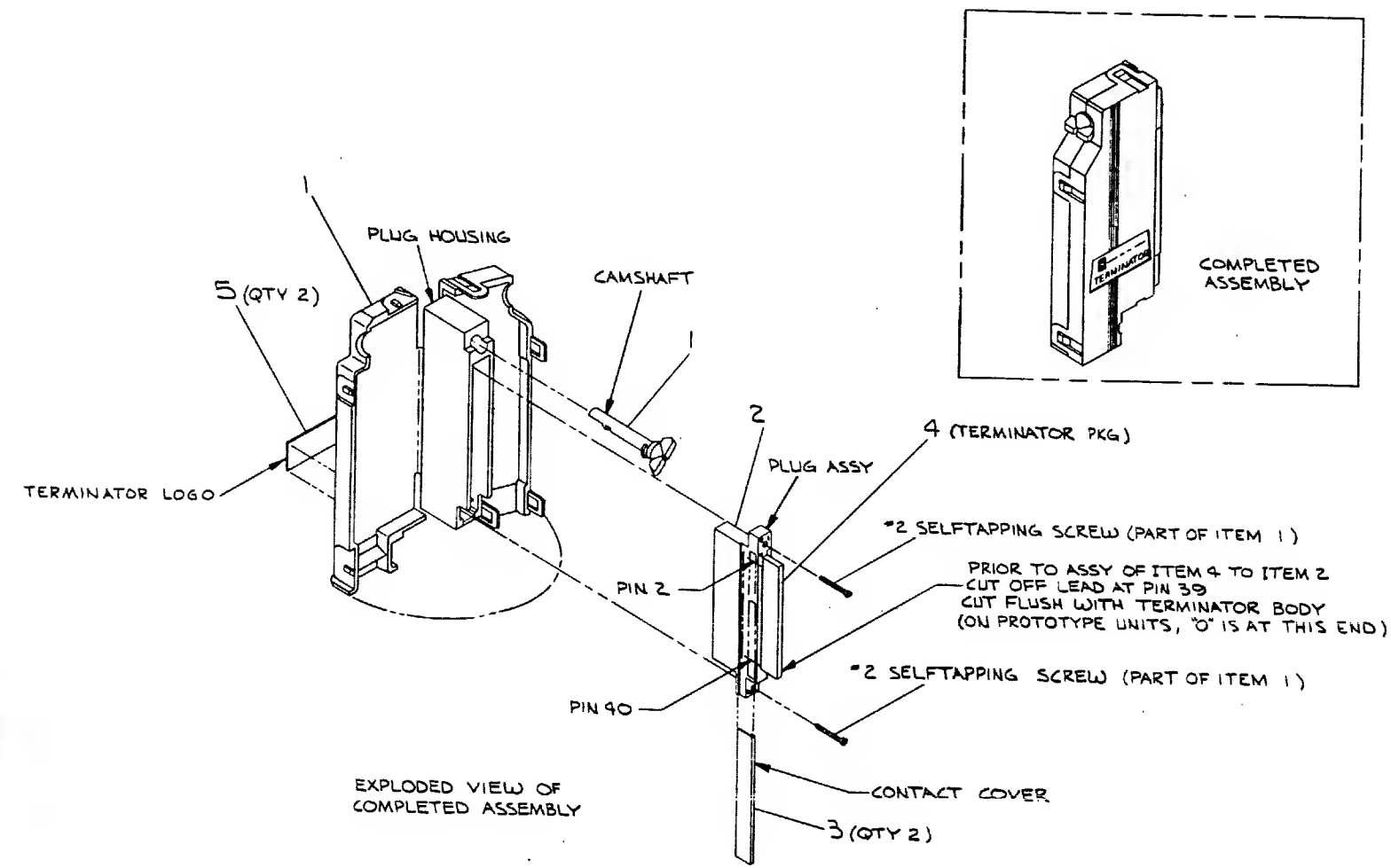


1	LABEL I.D.	3616989-0-0	6
1	LABEL I.D.	3616073-0-0	5
A/R	PLASTIC TAPE	3612511-0	4
A/R	INK	4901150	3
2	CONNECTOR, 40 SOCKET	1211206	2
A/R	CABLE, 40 COND FLAT W/SHIELD	17-00034	1

FIRST USED ON OPTION/MODEL		QTY	DESCRIPTION	PART NO	ITEM NO
RP04		PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES		DRN 10-2-22	DATE 12-22-79	EQUIPMENT CORPORATION	
DECIMALS	ANGLE	DATE 12-22-79	TITLE		
XXX - .005	±0° 30'	DATE 12-22-79	BC06R		
X - .1		DATE 12-22-79	I/O CABLE		
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY		DATE 12-22-79			
MATERIAL	NEXT HIGHER ASSY.	SIZE CODE	NUMBER	REV	
SEE PARTS LIST	E-1A-10093001-0-0	DUA	BC06R-0-0	F	
FINISH	SCALE NONE				
	SHEET 1 OF 1				

REVISIONS	
LINE	CHANGE NO.
1	1 BC06R-00001
2	2 BC06R-00002
3	3 BC06R-00003
4	4 BC06R-00004
5	5 BC06R-00005
6	6 BC06R-00006
7	7 BC06R-00007
8	8 BC06R-00008
9	9 BC06R-00009
10	10 BC06R-00010
11	11 BC06R-00011
12	12 BC06R-00012
13	13 BC06R-00013
14	14 BC06R-00014
15	15 BC06R-00015
16	16 BC06R-00016
17	17 BC06R-00017
18	18 BC06R-00018
19	19 BC06R-00019
20	20 BC06R-00020
21	21 BC06R-00021
22	22 BC06R-00022
23	23 BC06R-00023
24	24 BC06R-00024
25	25 BC06R-00025
26	26 BC06R-00026
27	27 BC06R-00027
28	28 BC06R-00028
29	29 BC06R-00029
30	30 BC06R-00030
31	31 BC06R-00031
32	32 BC06R-00032
33	33 BC06R-00033
34	34 BC06R-00034
35	35 BC06R-00035
36	36 BC06R-00036
37	37 BC06R-00037
38	38 BC06R-00038
39	39 BC06R-00039
40	40 BC06R-00040
41	41 BC06R-00041
42	42 BC06R-00042
43	43 BC06R-00043
44	44 BC06R-00044
45	45 BC06R-00045
46	46 BC06R-00046
47	47 BC06R-00047
48	48 BC06R-00048
49	49 BC06R-00049
50	50 BC06R-00050
51	51 BC06R-00051
52	52 BC06R-00052
53	53 BC06R-00053
54	54 BC06R-00054
55	55 BC06R-00055
56	56 BC06R-00056
57	57 BC06R-00057
58	58 BC06R-00058
59	59 BC06R-00059
60	60 BC06R-00060
61	61 BC06R-00061
62	62 BC06R-00062
63	63 BC06R-00063
64	64 BC06R-00064
65	65 BC06R-00065
66	66 BC06R-00066
67	67 BC06R-00067
68	68 BC06R-00068
69	69 BC06R-00069
70	70 BC06R-00070
71	71 BC06R-00071
72	72 BC06R-00072
73	73 BC06R-00073
74	74 BC06R-00074
75	75 BC06R-00075
76	76 BC06R-00076
77	77 BC06R-00077
78	78 BC06R-00078
79	79 BC06R-00079
80	80 BC06R-00080
81	81 BC06R-00081
82	82 BC06R-00082
83	83 BC06R-00083
84	84 BC06R-00084
85	85 BC06R-00085
86	86 BC06R-00086
87	87 BC06R-00087
88	88 BC06R-00088
89	89 BC06R-00089
90	90 BC06R-00090
91	91 BC06R-00091
92	92 BC06R-00092
93	93 BC06R-00093
94	94 BC06R-00094
95	95 BC06R-00095
96	96 BC06R-00096
97	97 BC06R-00097
98	98 BC06R-00098
99	99 BC06R-00099
100	100 BC06R-00100

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COMED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1976, DIGITAL EQUIPMENT CORPORATION



2	LOGO, TERMINATOR	A-DX-741667B-0-0	5
1	TERMINATOR PKG	1313242-00	4
2	COVER, CONTACT	1211591-11	3
1	PLUG ASSY	1211591-07	2
1	CONN PLUG HSG & CAMSHAFT KIT	1211591-34	1

QUANTITY & VARIATION		DESCRIPTION		DWG./PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES					
ANGLES 10° 30°	CLASS OF ACCURACY (CHECK ONE)	NOMINAL DIMENSION RANGE INCHES			
SURFACE QUALITY IN MICRONS	MEDIUM <input type="checkbox"/> PREFERRED <input type="checkbox"/>	OVER 0 TO 0.3	OVER 0.3 TO 1.3	OVER 1.3 TO 4.9	OVER 4.9 TO 12.0
		1.004	1.008	1.012	1.016
		1.012	1.016	1.020	1.024
		1.024	1.028	1.032	1.036
THIRD ANGLE PROJECTION		DRN. <i>[Signature]</i> 7-24-76		FIRST USED ON	
REMOVE BURS AND BREAK SHARP CORNERS		CHK'D. <i>[Signature]</i> 7-24-76		RK06	
DO NOT SCALE DWG		ENG. <i>[Signature]</i> 7-24-76		TITLE	
MATERIAL SEE PARTS LIST		PROL. ENG. <i>[Signature]</i> 5/11/76		TERMINATOR ASSY	
FINISH		NEXT HIGHER ASSY.		SIZE CODE	
		EUA RK611-0-0		NUMBER	
		SCALE: NONE		DIA7012293-0-0	
		SHEET 1 OF 1		REV. A	

D

LINE	ITEM	DOCUMENT NUMBER	PART NUMBER	DESCRIPTION	QUANTITY PER VARIATION 00
1	1	D-IA-7424557-0-0	7424557-00	ARM CABLE CARRIER	1
2	2	C-MD-7424556-0-0	7424556-00	BRKT MTG CABLE CARRIER	1
3	3	B-IA-7424555-0-0	7424555-00	BRKT CABLE TEATHER REL.	1
4	4		9008111-00	BUSHING, SNAP, NYLON 3/8 MGT HOLE	1
5	5	A-PS-1217870-0-0	1217870-00	PIN, CLEVIS 2.50 X .25	1
6	6		9009700-00	SCREW, TRUS, PHIL, SEMS 10-32X 1/2	2
7	7		9007867-00	MOUNT, PUSH, CABLE TIE	11
8	8		9007786-00	RETAINER, U-NUT, 10-32	2
9	9		9009642-00	SCREW, PAN, PHIL, SEMS 8-32X 1/4	2
10	10		9006662-00	WASHER, FLAT, .500 O.D. X .187 I	2
11	11		9007032-00	TIE, CABLE BUNDL. DIA 0-1-3/4"=101	13
12	12		1215700-04	CABLE ASSY, NYLON, 11" LG	1
13	13		9009984-00	SCREW, SEMS, PHILLIPS PAN HD. 6-	1

REVISION HISTORY			BASIC PART NO: OH026		DRN: A.J.ROCHA <i>HR</i>		DATE: 09-OCT-80		D I G I T A L			
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D: R.A.NELSON <i>RA</i>	DATE: 01-JAN-81	TITLE PARTS LIST						
---	INIT	A	SECTION. VARIATION INDEX	DES.ENG.: R.A.NELSON <i>RA</i>	DATE: 01-JAN-81	RL RETRACTOR ASSY						
			[A] 00	RESP.ENG.: R.A.NELSON <i>RA</i>	DATE: 01-JAN-81	DOCUMENT NUMBER						
			[B]	MFG.ENG.: J.HESS <i>W. J. Hess</i>	DATE: 01-JAN-81	SIZE	CODE	NUMBER	REV			
			[C]	ASSEMBLY NUMBER:	TOP DOCUMENT NUMBER:	K	PL	H026-0-DBP	A			
			[D]	D-UA-H026-0-00-0	B-DD-H026-0-0	FILE NAME:				EDIT #		
			[E]			Z0701.PLS				11		
			[F]	*THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT (C) 1981. DIGITAL EQUIPMENT CORPORATION *								

TW

This drawing and specifications, herein, are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.

WIRE TABLE

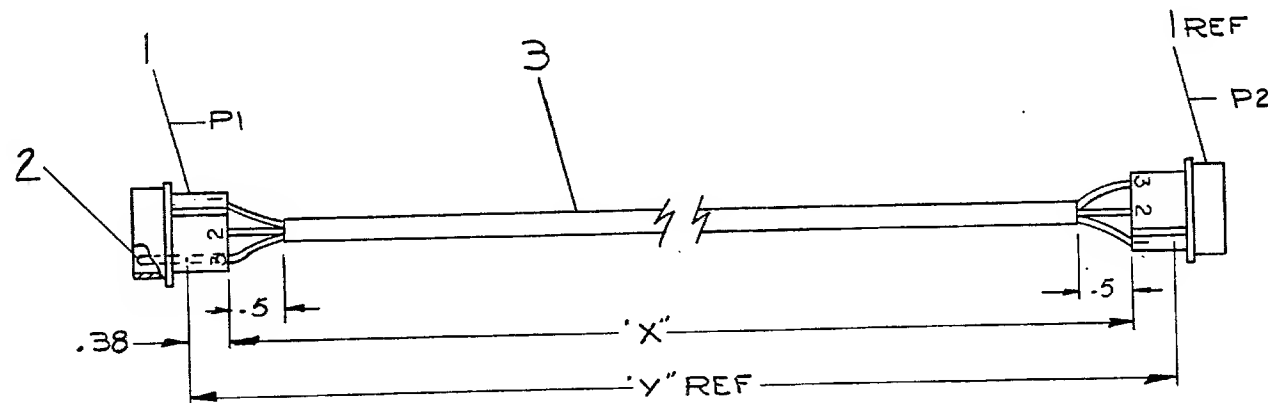
ITEM NO	DESCRIPTION		FROM		TO	
	AWG	COLOR	CONNECTION	WITH	CONNECTION	WITH
3	22	RED	PI-1	2	P2-1	2
3	22	BLK	PI-2	2	P2-2	2
3	22	GRN	PI-3	2	P2-3	2

LEGEND

NUMBER	DIM'X VARIATION	DIM'Y (PRECUT) REF
7008288-3F	3FT. 6IN ± 1 IN.	3FT. 6.8 IN ± 1 IN.
7008288-8F	8FT. 6IN ± 2 IN.	8FT. 6.8 IN ± 2 IN.
7008288-06	6FT. ± 2 IN.	6FT. 0.8 IN ± 2 IN.
7008288-12	12FT. ± 3 IN.	12FT. 0.8 IN ± 3 IN.
7008288-05	5FT. ± 1 IN.	5FT. 0.8 IN ± 2 IN.
7008288-10	10FT. ± 2 IN.	10FT. 0.8 IN ± 3 IN.
7008288-15	15FT. ± 3 IN.	15FT. 0.8 IN ± 3 IN.
7008288-08	8FT. ± 2 IN.	8FT. 0.8 IN ± 2 IN.
7008288-30	30FT. ± 7 IN.	30FT. 0.8 IN ± 7 IN.
7008288-40	40FT. ± 10 IN.	40FT. 0.8 IN ± 10 IN.
7008288-25	25FT. ± 10 IN.	25FT. 0.8 IN ± 10 IN.

NOTES

~~THE REMAINING BLK WIRE IS TO BE CUT BACK AT JACKET (BOTH ENDS.)~~



REVISIONS		REV.	CHANGE NO.
CHK	BY		
1	1	A	7008288-00001
2	2	B	7008288-00002
3	3	C	7008288-00003
4	4	D	7008288-00004
5	5	E	7008288-00005
6	6	F	7008288-00006
7	7	G	7008288-00007
8	8	H	7008288-00008
9	9	I	7008288-00009
10	10	J	7008288-00010

FIRST USED ON OPTION/MODEL
PDP/11

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS FRACTIONS ANGLES
± .005 ± .015 ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL
SEE PARTS LIST

FINISH
#

A/R	WIRE, 3 COND #22 AWG	9107756	3
6	PIN MALE #60620-1	1209378-03	2
2	PIN HOUSING #1-480305-0	1209351-03	1

QTY.	DESCRIPTION	PART NO.	ITEM NO.

UNLESS OTHERWISE SPECIFIED
DATE 3/22/71
CHK'D
DATE 3/31/71
ENG
DATE 4-3-71
PROJ. ENG
DATE 4-7-71
PROD.
DATE 4-21-71

digital EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

CABLE ASSY

SIZE CODE	NUMBER	REV.
CIA	7008288-0-0	J

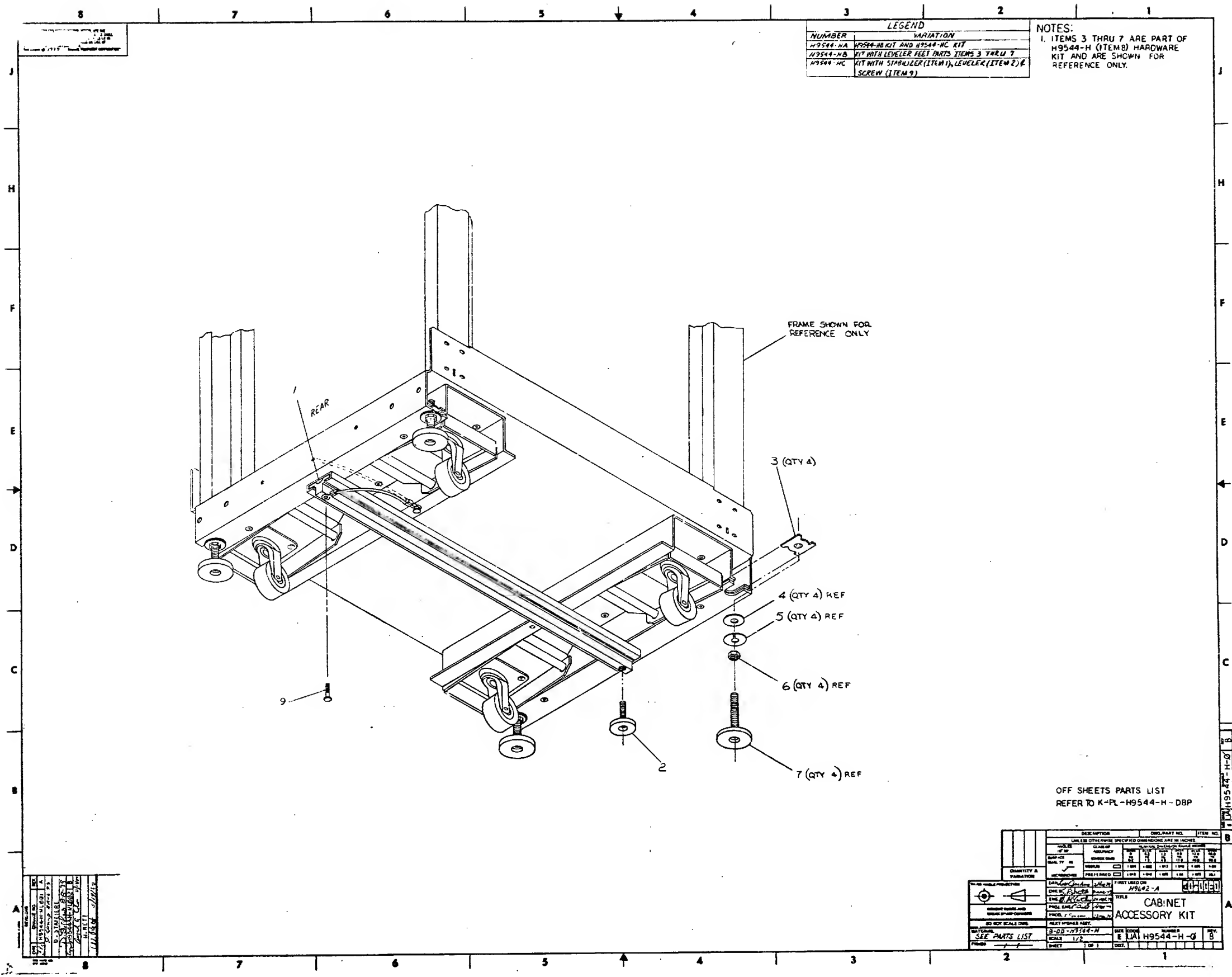
SCALE 1 OF 1
SHEET 1 OF 1

"THIS DRAWING AND SPECIFICATIONS, HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION. COPYRIGHT © 1979 DIGITAL EQUIPMENT CORPORATION.

[illegible]

REVISIONS	REV.		USED ON OPTION/MODEL	DRN.		DATE		TITLE	<div style="border: 1px solid black; padding: 2px; display: inline-block;">digital</div>			
	CHANGE NO.			S. ROBERTS	29MAR79							
				CHK'D.		DATE						
				<i>S. Roberts</i>	2-JUL-79							
				PROJ. ENG.		DATE		CABINET ACCESSORY KIT	SIZE	CODE	NUMBER	REV
				<i>P. Dubois</i>	5 JUL 79							
				PROD.		DATE						
CHK			SHEET 1 OF 2	<i>J. Sney</i>	5 JUL 79	DIST.						

[illegible]



LEGEND	
NUMBER	VARIATION
H9544-HA	H9544-HB KIT AND H9544-HC KIT
H9544-HB	KIT WITH LEVELER FEET PARTS ITEMS 3 THRU 7
H9544-HC	KIT WITH STABILIZER (ITEM 1), LEVELER (ITEM 2), & SCREW (ITEM 9)

NOTES:
1. ITEMS 3 THRU 7 ARE PART OF H9544-H (ITEM 8) HARDWARE KIT AND ARE SHOWN FOR REFERENCE ONLY.

OFF SHEETS PARTS LIST
REFER TO K-PL-H9544-H-D8P

REV	DESCRIPTION	DATE
1	AS SHOWN	11/11/88
2	REVISION	11/11/88
3	REVISION	11/11/88
4	REVISION	11/11/88
5	REVISION	11/11/88
6	REVISION	11/11/88
7	REVISION	11/11/88
8	REVISION	11/11/88
9	REVISION	11/11/88
10	REVISION	11/11/88

DESCRIPTION		QUANTITY	UNIT
CABINET ACCESSORY KIT		1	EA
H9544-H		1	EA
H9544-HA		1	EA
H9544-HB		1	EA
H9544-HC		1	EA
H9544-HD		1	EA
H9544-HE		1	EA
H9544-HF		1	EA
H9544-HG		1	EA
H9544-HH		1	EA
H9544-HI		1	EA
H9544-HJ		1	EA
H9544-HK		1	EA
H9544-HL		1	EA
H9544-HM		1	EA
H9544-HN		1	EA
H9544-HO		1	EA
H9544-HP		1	EA
H9544-HQ		1	EA
H9544-HR		1	EA
H9544-HS		1	EA
H9544-HT		1	EA
H9544-HU		1	EA
H9544-HV		1	EA
H9544-HW		1	EA
H9544-HX		1	EA
H9544-HY		1	EA
H9544-HZ		1	EA

PARTS LIST:

LINE	ITEM	DOCUMENT	NUMBER
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10
11	11	11	11
12	12	12	12
13	13	13	13
14	14	14	14
15	15	15	15
16	16	16	16
17	17	17	17
18	18	18	18
19	19	19	19
20	20	20	20
21	21	21	21
22	22	22	22
23	23	23	23
24	24	24	24
25	25	25	25
26	26	26	26
27	27	27	27
28	28	28	28
29	29	29	29
30	30	30	30
31	31	31	31
32	32	32	32
33	33	33	33
34	34	34	34
35	35	35	35
36	36	36	36
37	37	37	37
38	38	38	38
39	39	39	39
40	40	40	40
41	41	41	41
42	42	42	42
43	43	43	43
44	44	44	44
45	45	45	45
46	46	46	46
47	47	47	47
48	48	48	48
49	49	49	49
50	50	50	50
51	51	51	51
52	52	52	52
53	53	53	53
54	54	54	54
55	55	55	55
56	56	56	56
57	57	57	57
58	58	58	58
59	59	59	59
60	60	60	60
61	61	61	61
62	62	62	62
63	63	63	63
64	64	64	64
65	65	65	65
66	66	66	66
67	67	67	67
68	68	68	68
69	69	69	69
70	70	70	70
71	71	71	71
72	72	72	72
73	73	73	73
74	74	74	74
75	75	75	75
76	76	76	76
77	77	77	77
78	78	78	78
79	79	79	79
80	80	80	80
81	81	81	81
82	82	82	82
83	83	83	83
84	84	84	84
85	85	85	85
86	86	86	86
87	87	87	87
88	88	88	88
89	89	89	89
90	90	90	90
91	91	91	91
92	92	92	92
93	93	93	93
94	94	94	94
95	95	95	95
96	96	96	96
97	97	97	97
98	98	98	98
99	99	99	99
100	100	100	100

PART NUMBER

DESCRIPTION

QUANTITY PER VARIATION
HA HB HC

1	1	C-MD-7422204-0-0	7422204-00	EXT FOOT (METAL)	-	-	1
2	2		1216373-02	FOOT, LEVELER 1-3/8 BASE DIA 5/16	-	-	1
3	3		9008878-00	NUT, TEE, IRR. BASE 1/2-13 S/ZIN	-	-	4
4	4		9009026-00	WASHER, FLAT, .875 O.D. X .515 I	-	-	4
5	5		9009895-00	WASHER, LOCK, SPLIT, .518 ID X .	-	-	4
6	6		9006596-00	NUT, HEX, 1/2-13X3/4 AF X 7/	-	-	4
7	7		9007601-01	FOOT, LEVELER, CUSHION, 1/2-13;	-	-	4
8	8		2200022-00	HARDWARE KIT FOR H9544-H	-	REF	-
9	9	B-MD-7424417-0-0	7424417-00	SCREW, HEX HEAD	-	-	1
10	10		H9544-HB	KIT OF 4 LEVELERS	1	-	-
11	11		H9544-HC	KIT OF 1 STABILIZER LEG WITH LEV	1	-	-

12 NOTE: ITEMS 3 THRU 7 ARE PART OF H9544-H HARDWARE KIT AND ARE

13 NOTE: LISTED FOR REFERENCE ONLY

REVISION HISTORY		BASIC PART NO:	H9544	DRN:	LISE GRAHAM	DATE:	02-MAR-79	D	I	G	I	T	A	L
ENG	ECO NUMBER	REV	SECTION A OF A	CHK'D:	S. ROBERTS	DATE:	02-MAR-79							
---	INITIAL	*	SECTION. VARIATION INDEX	DES.ENG.:	W.F. MC CARTHY	DATE:	02-MAR-79							
DS	H9544-H-ML001	A	[A] HA,HB,HC	RESP.ENG.:	P. DUBE	DATE:	02-MAR-79							
WR	H9544-H-ML002	B	[B]	MFG.ENG.:	R. CARRIER	DATE:	02-MAR-79	K	PL	H9544-H-DBP				
			[C]	ASSEMBLY NUMBER:	E-UA-H9544-H-0	TOP DOCUMENT NUMBER:				FILE NAME:	Z0241B.PLS			
			[D]											
			[E]											
			[F]											

THIS DRAWING AND SPECIFICATIONS HEREIN, ARE THE PROPERTY OF DIGITAL EQUIPMENT CORPORATION AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION.
COPYRIGHT (C) 1980. DIGITAL EQUIPMENT CORPORATION